

FISHER, L.I.

Treatment of patients with coronary insufficiency by means of gangleron
electrophoresis. Terap. arkh. 32 no. 7:21-24 Jl '60. (MIRA 14:1)
(AUTONOMIC DRUGS) (CORONARY HEART DISEASE)
(ELECTROPHORESIS)

SHARVIN, Yu.V.; FISHER, L.M.

Observation of focused electron beams in a metal. Pis'. v
red. Zhur. eksper. i teor. fiz. 1 no.5:54-57 Je '65.
(MIRA 18:11)
1. Institut fizicheskikh problem imeni Vavilova AN SSSR.
Submitted April 29, 1965.

FISHER, L.V.

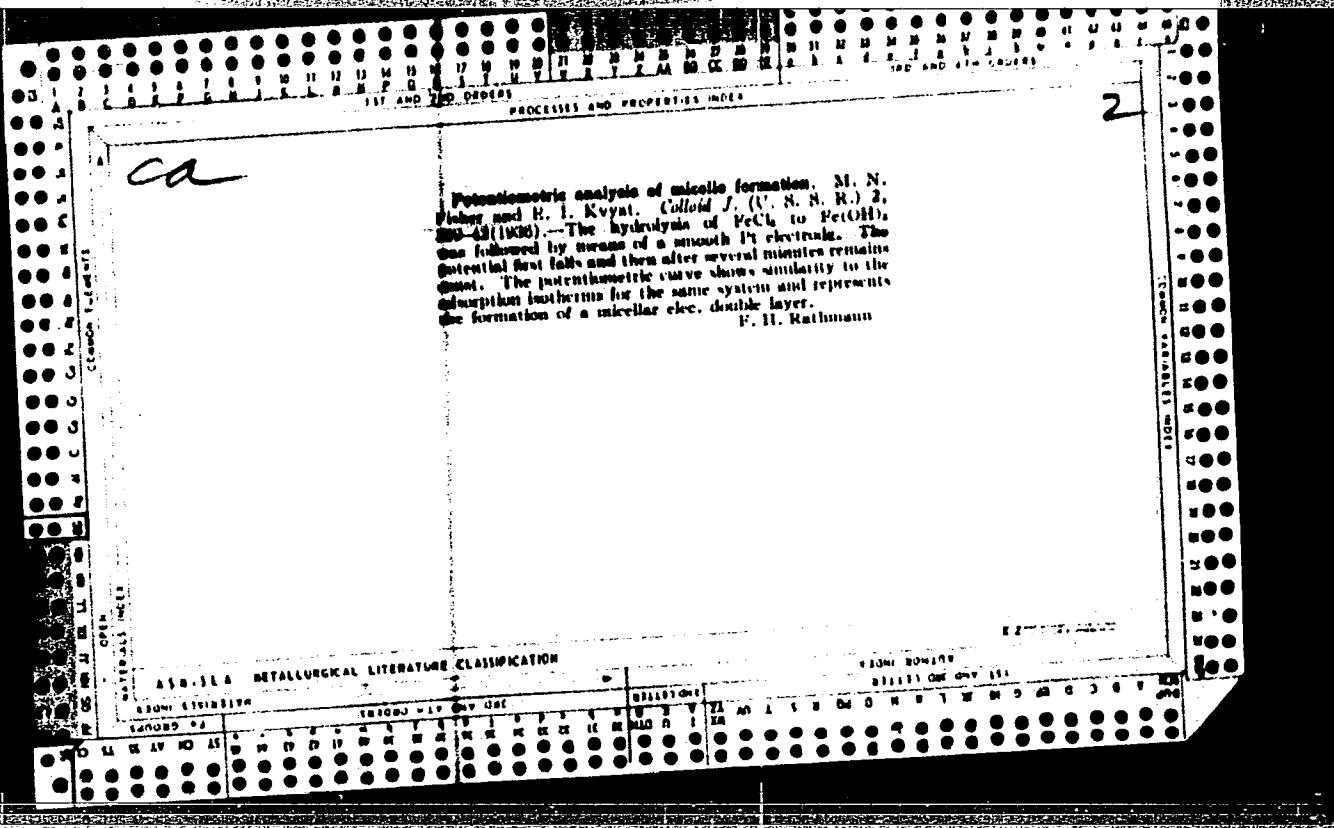
CA

Acetylene derivatives. XCII. Rearrangement of 1,3-diene system. 5. Irreversible isomerization of 5-phenyl-1,3-hexadien-5-ol into 5-phenyl-2,4-hexadien-1-ol. I. N. Nazarov and L.V. Fisher. Izv. Akad. Nauk S.S.R., Otdel. Khim. Nauk 1949, 391-9; cf. C.A. 43, 6625a. — $\text{CH}_3\text{CH}_2\text{CC}(\text{OH})\text{MePh}$, b.p. 111-12°, m. 39°, was obtained conventionally in 65% yield from AcPh and $\text{CH}_3\text{CH}_2\text{CMgBr}$. This (120 g.) and 62 g. coppered Zn dust in 300 ml. Et₂O and 30 ml. H₂O were stirred 15 hrs. at room temp. and 18 hrs. at 35-40°, then treated with 62 g. Cu-Zn and 30 ml. H₂O and the process repeated 6 times (total time, 220 hrs.); after the usual working-up, there was obtained 90 g. 5-phenyl-1,3-hexadien-5-ol, b.p. 100-1°, d₂₀²⁰ 0.9905, n_D²⁰ 1.5618, which can be stored for months without change, and on hydrogenation over Pt yields methyl(4-phenylbutyl)carbinol, b.p. 103-7°, n_D²⁰ 1.5105. The dienol, b.p. 84-0° (52 g.), heated 10 hrs. to 40-5° in 780 ml. 70% aq. dioxane and 1% H₂SO₄ yielded 16 g. unchanged substance and 16 g. 5-phenyl-2,4-hexadien-1-ol, b.p. 123-8°, n_D²⁰ 1.6182 (supercooled), m. 54° (from petr. ether), which turns yellow on standing and polymerizes to a viscous mass; on hydrogenation over Pt in EtOH this dienol takes up 2 H mols. and yields 5-phenyl-1-hexanol, b.p. 116-18°, n_D²⁰ 1.6200, d₂₀²⁰ 0.9721 (phenylhexan, m. 52°). A reverse isomerization of the dienol could not be attained and stirring it with aq. dioxane with a trace of H₂SO₄ gave largely unchanged substance and a little tar. **XCIID.** Addition of hydrogen cyanide to allyl isopropenyl ketone. I. N. Nazarov and M. V. Kuvardina. Ibid. 391-5. — Hydration of $\text{CH}_3\text{CH}_2\text{C}(\text{Me})\text{CH}_2\text{C}(=\text{O})\text{CH}_2\text{CH}_3$ in aq. MeOH gave allyl isopropenyl ketone (I), b.p. 47-8°, n_D²⁰ 1.4005. Addn. of 42 g. KCN in 100 ml.

H₂O to 18 g. I, 150 ml. EtOH, and 44 g. AcOH over 15 min. at 35° with stirring, followed by 4 hrs. at 35° and standing overnight, gave 3.5 g. 1,3-dimethyl-1-cyclohexene-5-one (II), b.p. 48-5°, b. 105-7°, n_D²⁰ 1.4630 (semicarbazone, m. 170°), 8 g. 2-cyano-5-methyl-5-hexen-6-one (III), b.p. 105-7°, n_D²⁰ 1.4120, and 4 g. mixed $\text{CH}_3\text{CH}_2\text{COCH}(\text{CN})\text{CH}_2\text{COCH}(\text{CH}_2\text{CN})\text{Me}$ (IV) and $\text{MeCH}(\text{CN})\text{CH}_2\text{COCH}(\text{CH}_2\text{CN})\text{Me}$ (V), b.p. 150-65°, n_D²⁰ 1.4630; addn. of 102 g. KCN in 200 ml. H₂O over 0.5 hr. at 35° to 32 g. I, 300 ml. EtOH, and 105 g. AcOH, letting stand overnight, stirring 7 hrs. at 43-50°, and letting stand overnight gave 4 g. II, b.p. 105-7°, 7 g. III, b.p. 110-18°, n_D²⁰ 1.4630, 5.5 g. IV, b.p. 128-30°, n_D²⁰ 1.4630, and 1.2 g. V, b.p. 158-60°, n_D²⁰ 1.4630. Pure III is a greenish liquid, b.p. 103-7°, n_D²⁰ 1.4010, d₂₀²⁰ 0.9833 [semicarbazone, m. 194-5° (from 50% MeOH)]; hydrogenation with 1 mole H₂ in EtOH over Pt gave $\text{MeCH}(\text{CN})\text{CH}_2\text{COCH}_2\text{Me}$, b.p. 111°, n_D²⁰ 1.4400, d₂₀²⁰ 0.9584 [semicarbazone, m. 167-8° (from 50% MeOH)]; hydrolysis of this nitrile by hot 30% H₂SO₄ requires 1-2 days at 70-100° and gives a noncrystallizable acid. Ozonization of III gave HCO₂H, AcOH, and methylsuccinic acid, m. 111-12°. IV is a colorless liquid, b.p. 128-30°, b.p. 115-17°, n_D²⁰ 1.4820, d₂₀²⁰ 0.9802, and does not give a solid semicarbazone; on hydrogenation it forms 75% 6-cyano-5-methyl-4-hexanone (1 mole H₂ taken up), b.p. 112-13°, n_D²⁰ 1.4415, d₂₀²⁰ 0.9558 [semicarbazone, m. 188-9° (from 50% MeOH)], which is unchanged after 10 hrs. at 75° with 30% H₂SO₄. V is a greenish oil, b.p. 158-60°, n_D²⁰ 1.4600, d₂₀²⁰ 1.0392, which darkens on standing and decomps., yielding HCN and forming unsatd. keto nitriles (III and IV); hydrolysis of V by 30% H₂SO₄ 10 hrs. at 05° gave HO₂CCH₂MeCH₂COCH₂MeCH₂CO₂H, m. 81-2° (from C₁₇H₁₆), which does not yield a solid semi-

Inst. Org. Chem., AS USSR

hydrolysis at ~10° gave (6 g. mixt. of isomeric 1,2,5-trimethyl-6-phenyl-6-piperidols, sepd. by ligroin crystn. into (largely) a high-melting isomer, m. 104-7°, and (some 10%) lower-melting isomer, m. 95-7°; the former yields the acetate, b. 157-8°, nD²⁰ 1.6150, d²⁰ 1.0412 (HCl salt, oil), and propionate, b. 100-70°, nD²⁰ 1.6100, d²⁰ 1.0330 (the HCl, HBr, and oxalic acid salts are extremely hygroscopic). G. M. Kosolapoff



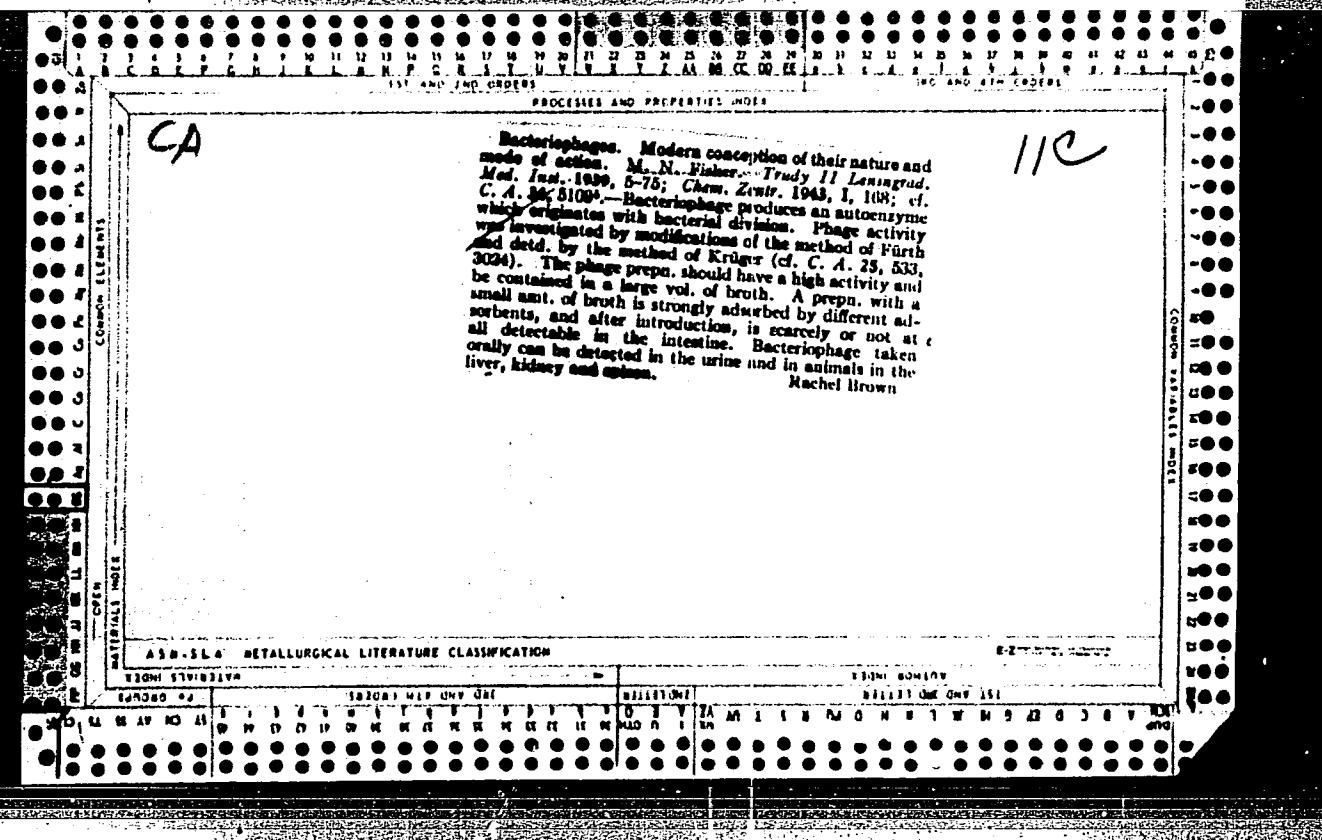
CW

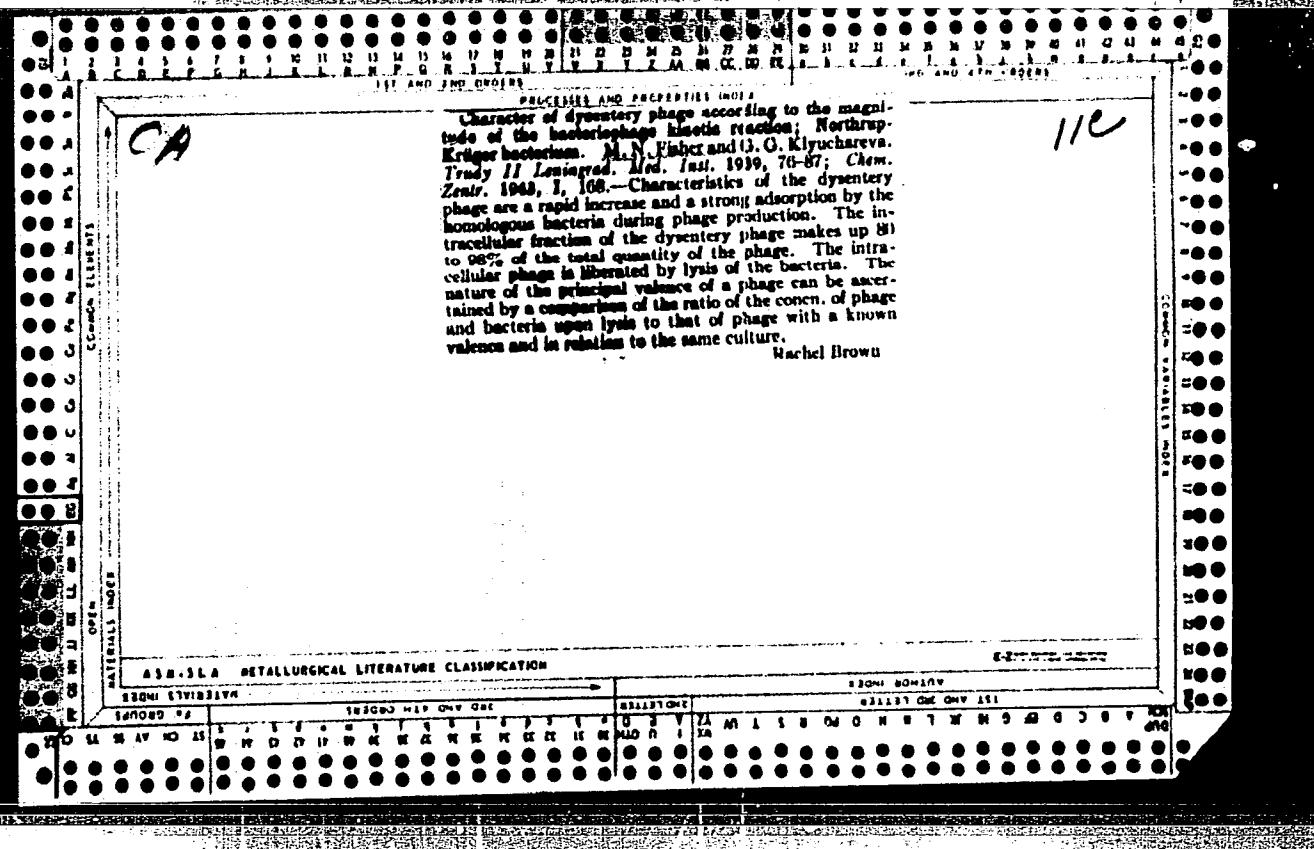
119

The unity of the nature of the autogenous and of the lysis-agglutinative activity of immune serum. M. N. Fisher, *Arch. sci. biol. (U. S. S. R.)* 60, 137-66 (1956). On the basis of extensive analyses on aging typhoid and paratyphoid cultures the following conclusions are presented: Serial analysis of aging bouillon cultures with multiple inoculations permits the soln. of a bacteriophage lysis (A) which in turn appears to be a factor of an autogenous lysis-agglutinin activity, and its rate of development to follow Robertson's autocatalytic growth law. In such aging cultures the stage of rapid autolyses is characterized by rapid rate of univalent ions (K^+ , Na^+ , Cl^-) and by slow absorption of bi- and tri-valent ions (Ca^{++} , Mg^{++} , PO_4^{---} , SO_4^{--}). In the later stages of autolysis there is a slow return of the ions into the medium, with the exception of Na^+ which is completely recovered in the medium. This differential absorption and excretion of ions by bacteria are correlated with the different hydrations of the ions and their role in the swelling and gelling of gels. The appearance of A corresponds to a sharply defined decarboxylation and deamination of the proteins of

the medium. It is capable of digesting not only the living organisms but also the proteins dissolved in the medium. The quant. changes in the content of I in the filtrate correspond to quant. changes in the content of cyclic amino peptide N (the N of the phosphotungstate filtrate in the Van Slyke system of N partition). Changes in the colloid stability (lowering of the zeta potential, the widening of the isoelectric point zone, lowering of the viscosity) of the aging cultures proceeds parallel to the development of the lytic properties of the medium. The unity of the conditions of development of the autogenous and of the serum lysis-agglutinative activity permit the proposal of a hypothesis concerning the fundamental unity of their nature. The hypothesis is developed further on the basis of the theories of Bauer concerning living protein (C. A. 26, 6711); the classical conception of Buchner of the nature of the reaction between antigen and protein mol. of the organism leading to formation of antibody; the theories of d'Herelle concerning the nature of bacteriophage, etc. W. A. Perlweig

ASH-SLA METALLURGICAL LITERATURE CLASSIFICATION





ISHEV, M.N. and KLYUCHAEV, G.G.

A Method of Quantitative Estimation of Bacterial Contamination of Wounds.
Voennaya Meditsina na Leningrad fronte, [Military Medicine on the Leningrad
Front] 1946.

FISHER, M. N.

27948. FISHER, M. N. -- Sovremennoye sostoyaniye teorii i praktiki bakteriofagii.
Trudy. Leningr. San.-Gigiyen. Med. In-ta, T. II, 1949, S. 159-64.
VERESHCHAGIN, N. K. K ekologogii i epidemiologicheskому znacheniyu gryzunov
lenkoranskoy nizmennosii i gornogo talysha. -- SM. 27670.

SO: Letopis' Zhurnal'nykh Statey. Vol. 37, 1949.

FISHER, M. M.

3673

K VOPROSU KHRONICHESKOM OGNESTREL'NOI OSTEOMIELITE. TRUDY SARAT. GOS. MED. IN-TA, T. VIII,
1949, S. 215-18.

SO: LETOPIS NO. 31, 1949

CA

1/C

Biological antisepsis as factor of specific prophylaxis,

therapy, and diagnosis. M. N. Fisher... *Trudy Leningrad.*
Sanit. Gigien. Med. Inst., 8; 8*10(1930).—Summary report
is given of exptl. proof of *in vivo* bacteriophage activity in
intracerebrally infected mice, cutaneously infected rabbits,
and intraperitoneally infected mice (dysentery, streptococ-
cus, and staphylococcus infections). Characterization of
the production line of penicillin by bacterial spectrum of
gram-pos. and -neg. bacteria was carried out and chromato-
graphic purification of penicillin was developed.
(G. M. Kosolapoff)

FISHER, M. N. and ADEL'SON

"The Nature of the Phenomenon of Sterile Spots", Biologicheskiye Antiseptiki,
1950, pp 17-28

Trans

M-70, 18 Jan 55

FISHER, M. N. and GORELOVA, Ye. A.

"The activity constant as an index of the characteristics of therapeutic-prophylactic preparations of dysentery bacterial phage", Biologicheskiye Antiseptiki, 1950, pp 30-37

Trans

M-71, 18 Jan 55

FISHER, Prof. M. H.

"The Microflora of Gunshot Osteomyelitis (Infection Microflora and Contamination Microflora) in Connection with the Employment of Antibiotics", Biologicheskiye Antiseptiki, 1950, pp 96-115

Trans

M-78, 19 Jan 55

FISHER, M. N. and SHALITA, R. L.

"A Coli-Dysentery Bacteriophage Preparation", Biologicheskiye Antiseptiki, 1950,
pp 116-126

Trans

M-79, 19 Jan 55

8A

11C

Titration of antibiotic activity of penicillin. M. N. Fisher,
Trudy Leningrad. Nauch. Gigien. Med. Inst. S. 137-37
(1954).—The method of progressive diln. combined with
turbidimetric or colorimetric diln. can be accurate within
5-10%. For best results the colorimetric method employ-
ing methylene blue is advised; the dilns. that are of suf-
ficient concn. for bacteriostasis remain colored blue. The
commonly practiced method of progressive diln. with estin.
of bacterial count by visual turbidity is too inaccurate. The
dish method of titration utilizing the diam. of a sterile zone
is accurate within 5-10%. The theory of the method is dis-
cussed in detail. (G. M. Kosolapoff)

Translation M-80, 19 Jan 55

"APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000413310009-0

FISHER, M.N., VOLKOVA, V.G. and SERGASHEVA, L.

"The characterization of penicillin preparations by their antibacteria action of pathogenic bacteria." Biologicheskiye Antiseptiki, pp. 154-162, 1950.

Translation-M-83, 19 Jan 1955.

APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000413310009-0"

FISHER, M.N. and BUNTE, A.I.

"Variability of the diphtheria Bacilli in relation to the Bacteriological diagnosis of Diphtheria." Biologicheskiye Antiseptiki, pp 251-265, 1950.

Translation-M-345, 21 Apr 1955.

FISHER, M.N. and VAYZER, A.M.

"Experience in the serological differentiation of diphtheria cultures and in the serological diagnosis of diphtheria." Biologicheskiye Antiseptiki, pp 266-276, 1950.

Translation-M-346, 21 Apr 1955.

FISHER (M)

USSR.

Spectrographic characteristics of prepared penicillin. M. N. Fisher and M. K. Byrayeva, *Vestnik Leningrad. Univ.* 5, No. 3, 106-14 (1950).—F. and B. studied various forms of commercial penicillin (I) by means of both ultraviolet and infrared spectrophotometry. Investigations were made on P-F (pentenyl-I), P-G (benzyl-I), P-X (*p*-hydroxybenzyl-I), P-K (pentyl-I), and flavik-P (flavikid-I). Spectral characteristics are given for the various forms. Infrared spectrophotometry clearly indicates the penicillin dipeptide-peptide bond to be in the form of a 4-membered β -lactam ring. R. D. Krois

FISHER, M.N.; MEKLER, S.S.; SHMIDT, M.M.

Serodiagnosis of diphtheria according to data from the Botkin Hospital observed during 1954-55. Trudy ISGMI 30:102-104 '56. (MLRA 10:8)

1. Laboratoriya bol'nitsy im. Botkina (glavnnyy vrach - M.M.Figurina;
zav. laboratoriye - prof. M.N.Fisher)
(DIPHTHERIA, diagnosis,
serol., results, hosp. statist. (Rus))

FISHER, M.N.

FISHER, M.N.; MEKLER, S.S.; IVANOVA, M.G.

Serodiagnosis of suspected scarlet fever by lamellar agglutination.
Trudy LSGMI 30:124-128 '56. (MLRA 10:8)

1. Laboratoriya bol'nitsy im. Botkina (glavnnyy vrach - M.M.Figurina
zav. laboratoriye - prof. M.N.Fisher)
(SCARLET FEVER, diagnosis
agglut. reaction (Rus))

FISHER, M.N.

Teaching medical microbiology with provisions for independent
student work. Zhur.mikrobiol.epid. i immun.28 no.12:127-130 D '57.
(MIRA 11:4)

1. Iz kafedry mikrobiologii Leningradskogo sanitarno-gigiyenicheskogo
meditsinskogo instituta.
(MICROBIOLOGY, education,
(Rus)

VAL'NER, V. I., KIAU KAREV, G. G., FAYER, C. A., KHOVA, T. I.,
KIFACHEVA, S. I., IGNATOVICH, Z. A., RAZBEEV, A. S., KUCHERIK, V. G.,
PERTSOVSKAYA, N. I., TALAYEVA, YU. G., VILOPOVETS, V. V., ANDREYEVA, G. V.

"Modern problems of sanitary bacteriology in the solution
of problems of communal hygiene."

report submitted at the 13th All-Union Congress of Hygienists, Epidemiologists
and Infectionists, 1959.

FISHER, M. N.

"Precise and accelerated serodiagnosis of intestinal infections."

report submitted at the 13th All-Union Congress of Hygienists, Epidemiologists and Infectionists, 1959.

FISHER, M.N.

Sanitary-index role of dysenterial bacteriophages in the framework
of the current theory of bacteriophage. Trudy LSGMI 46:119-131
'59. (MIRA 13:11)

1. Kafedra mikrobiologii Leningradskogo sanitarno-gigiyenicheskogo
meditsinskogo instituta (zav. kafedroy - prof. M.N.Fisher).
(SHIGELLA) (BACTERIOPHAGE)

FISHER, M.N.; BUNTE, A.I.; KROTOV, Yu.A.

Value of detecting Hofmann's bacillus in the air as a sanitary index
in closed quarters. Trudy LSGMI 46:203-212 '59. (MIRA 13:11)

1. Kafedra mikrobiologii Leningradskogo sanitarno-gigiyenicheskogo
meditsinskogo instituta (zav. kafedroy - prof. M.N.Fisher) i
Kafedra obshchey gigiyeny I Leningradskogo meditsinskogo instituta
imeni I.P.Pavlova (zav. kafedroy - prof. I.Ye.Ramm).
(AIR-BACTERIOLOGY) (CORYNEBACTERIUM PSEUDODIPHTHERIAE)

FISHER, M.N.

Concentration by drying combined therapeutic and prophylactic
preparations (cattle serum and biological antiseptic). Trudy
LSGMI 46:309-313 '59. (MIRA 13:11)

1. Kafedra mikrobiologii Leningradskogo sanitarno-gigiyenicheskogo
meditsinskogo instituta (zav. kafedroy - prof. M.N.Fisher).
(BIOLOGICAL PRODUCTS---DRYING)

FISHER, M.N., prof.

Theory and practice of phage typing. Trudy LSGMI 66:7-11 '62.

Phage typing of enteropathogenic strains. Ibid.:43-46
(MIRA 17:4)

1. Kafedra mikrobiologii Leningradskogo sanitarno-gigienicheskogo
meditsinskogo instituta (zav. kafedroy - prof. M.N.Fisher).

FISHER, M.N.; BUNTE, A.I.; ZHLOVA, R.Z. [deceased]

Isolation of pathogenic intestinal bacteria from objects of ambient medium. Trudy LSGMI 66:51-54 '62. (MIRA 17:4)

1. Kafedra mikrobiologii Leningradskogo sanitarno-gigiyeni cheskogo meditsinskogo instituta (zav. kafedroy - prof. M.N.Fisher).

Z/019/63/020/002/002/006
E073/E335

AUTHORS: Kofman, L.M., Rudakov, Y.D., Martynov, A.V.,
Fisher, N.A. et al

TITLE: Increase in the steam super-heating temperature and
its regulation in a fuel oil-fired boiler by
recirculating the flue gases

PERIODICAL: Energetika a elektrotechnika. Přehled technické a
hospodářské literatury, v. 20, no. 2, 1963, 65,
abstract E63-823 (Elektricheskiy stantsii, 53, no. 6,
1962, 14 - 17)

TEXT: Describes the adaptation of a boiler, originally
intended for burning hard coal, to take fuel oil. A higher
temperature of superheated steam, and its requisite regulation
were achieved by recirculating flue gases drawn from behind the
"additional" surfaces back to the hearth. Measurements on the
reconstructed boiler (with various degrees of recirculation)
confirmed the effectiveness of the adaptation. Three figures,
one table.

[Abstracter's note: complete translation.]

Card 1/1

USSR/Morphology of Man and Animals - Digestive System.

S-3

Abs Jour : Ref Zhur - Biol., No 6, 1950, 26427

Author : Fisher, N.D.

Inst :

Title : Cytologic Studies of the Oral Mucosa in Pemphigus.

Orig Pub : Stomatologiya, 1957, No 3, 28-30.

Abstract : Cytologic studies of the epithelial nuclear elements in various diseases (aphthous stomatitis, exudative erythema, etc.) frequently showed a decrease in the size of the cells. In pemphigus, eroded areas of the oral mucosa revealed multinucleated cells and a sharp aberration in the nucleo-protoplasmic ratio. An enlarged nucleus had large nucleoli, atypical cells were irregularly round, the amount of chromatin was not uniform and luminescence of the pemphigus cells under a luminescent microscope and their appearance on smears resembled .

Chr, Therapeutic Stomatology, Moscow Med Stomatological Inst, and laboratori tkaneykh
Card 1/2

kul'tur, State Sci. Res. Inst. Ear, Throat and Nose, Min Health RSFSR

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.. USSR/Morphology of Man and Animals - Digestive System,

S-3

Abs Jour : Ref Zhur - Biol., No 6, 1958, 26427

atypical cells of malignant tumors but differed in
their staining properties (basophilic).

Card 2/2

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FISHER, O.A.

Effect of minor elements on the growth and development of
ornamental flowering plants. Trudy Bot. inst. Ser, 6 no.4:
295-309 '55. (MIRA 9:2)
(Plants, Ornamental) (Trace elements)

APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000413310009-0"

FISHER, O. A. Cand Biol Sci -- (diss) "Effect of ~~microelements~~^{trace elements upon} the growth, development, and decorative qualities of flower ~~crops~~^{plants}" Len, 1957. 16 pp 20 cm. (Acad Sci USSR. Botanical Inst im V. L. Komarov), 150 copies (KL, 15-57, 105).

FISHER, P.N.

How to increase the yield of yeast from the vinasse? Gidroliz.i
lesokhim. prom. 9 no.3:26 '56. (MLRA 9:8)

1. Zaveduyushchiy laboratoriyye drozhzhevogo proizvodstva Vsesoyuz-
nogo nauchno-issledovatel'skogo instituta gidrolyznyi i sul'fitno-
-spiritovoy promyshlennosti.

(Yeast)

MALKOV, A.M., professor, doktor tekhnicheskikh nauk; FISHER, P.N., redaktor;
VOLKHOVER, R.S., tekhnicheskiy redaktor.

[Production of yeast from nonfood substances] Proizvodstvo drozhzhei iz
nepishcheyogo syr'ia. Moskva, Goslesbumizdat, 1953. 175 p. (MLRA 7:5)
(Yeast)

KRYUCHKOVA, A.P., kand.biolog.nauk; FISHER, P.N.

Production and utilization of fodder yeast. Khim.nauka i prom.
2 no.4:451-458 '57. (MIRA 10:11)
(Yeast)

FISHER, P.H.

Problem of the development of the production of fodder yeast. Gidro-
liz. i lesokhim. prom. II no. 4:4-8 '58. (MIRA II:6)

1. Vsesoyusnoy nauchno-issledovatel'skiy institut gidroliznoy i
vul'fitno-spirtovoy promyshlennosti.
(Yeast) (Feeding and feeding stuffs)

FISHER, P.N.
17(2)

AUTHOR: Alferov, V. V. SOV/30-59-2-48/60

TITLE: Continuous Fermentation and Breeding of Microorganisms
(Nepreryvnoye brozheniye i vyrashchivaniye mikroorganizmov)

PERIODICAL: Vestnik Akademii nauk SSSR, 1959, Nr 2, pp 106-108 (USSR)

ABSTRACT: The Institut mikrobiologii Akademii nauk SSSR (Microbiological Institute of the Academy of Sciences, USSR) convened a conference from October 13 to 15, 1958 which dealt with the investigation of some working results in this field as well as with the discussion of a further intensification of the productions basing on the activity of microorganisms. The conference was attended by more than 200 representatives of academic and scientific branch research institutes, enterprises, sovnarkhozes, universities, as well as foreign scientists. The following lectures were heard:
N. D. Iyerusalimskiy spoke of the theoretical foundation of the method of continuous microbe breeding and its prospects of application in the microbiological industry.
Ye. A. Plevako, Vsesoyuznyy nauchno-issledovatel'skiy institut khlebopekarnoy promyshlennosti (All-Union Scientific Research

Card 1/4

Continuous Fermentation and Breeding of Microorganisms , SOV/30-59-2-48/60

Institute of Bread-Production Industry) dealt with the problem of the breeding of yeast in solutions containing molasses.

P. N. Fisher, K. P. Andreyev, V. A. Utenkova, M. Ya. Kalyuzhnnyy and A. P. Kryuchkova, Vsesoyuznyy nauchno-issledovatel'skiy institut gidroliznoy i sul'fitno-spirtovoy promyshlennosti (All-Union Scientific Research Institute for the Industry of Hydrolysis and Sulfite Spirits) evaluated the theoretical and practical work in the field of continuous fermentation of wood hydrolyzates and sulfite liquor as well as their utilization for obtaining fodder yeast.

V. I. Morozova, Krasnoyarskiy gidroliznyy zavod (Krasnoyarsk Hydrolysis Plant) said that the introduction and completion of the continuous process of yeast breeding made it possible to increase the output of yeast factories by ten times.

V. L. Yarovenko, A. L. Malchenko, Vsesoyuznyy nauchno-issledovatel'skiy institut spirtovoy i likero-vodochnoy promyshlennosti (All-Union Scientific Research Institute of the Spirit, Liqueur and Brandy Industry), V. M. Nakhmanovich, Dokshuninskaya nauchno-issledovatel'skaya laboratoriya (Dokshuninskaya Scientific Research Laboratory) reported on the experiment of applying the method of continuous fermentation

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Continuous Fermentation and Breeding of Microorganisms SOV/30-59-2-48/60

of the starchy raw material and syrup in the alcohol and acetone-butanol industry.

S. A. Konovalov, All-Union Scientific Research Institute of the Alcohol, Liqueur and Brandy Industry reported on the problem of antiseptics in fighting infection due to ferments. L. Yu. Medvinskaya, Institut mikrobiologii Akademii nauk USSR (Microbiological Institute of the AS UkrSSR) reported on the investigation of the morphological and physiological properties of yeast.

A. D. Kovalenko, Andrushevskiy spirtovoy zavod (Andrushevka Distillery), N. Ya. Savchenko, Malo-Viskovskiy spirtovoy zavod (Malo-Viskovskiy Alcohol-Distillery), S. P. Makarova, Smolenskiy Sovnarkhoz (Smolensk Sovnarkhoz) reported on some working results obtained by distilleries in the syrup fermentation by using the method of continuous flow.

M. S. Loytsyanskaya, Leningradskiy universitet (Leningrad University) characterized the correlation of reproduction processes and biochemical activity of acetic acid bacteria in the high-speed production of vinegar.

N. M. Neronova, Microbiological Institute of the AS USSR spoke of the possibility of obtaining vitamin B₁₂ by

Card 3/4

Continuous Fermentation and Breeding of Microorganisms SOV/30-59-2-48/60

continuous breeding of propionic acid bacteria
(propionovokislyye bakterii). S. L. Brinberg, O. Z. Grabovskaya,
Vsesoyuznyy nauchno-issledovatel'skiy institut antibiotikov
(All-Union Scientific Research Institute of Antibiotics)
reported on the application of this method in the production
of penicillin.

V. V. Vyatkina, All-Union Scientific Research Institute of the
Spirit, Liqueur, and Brandy Industry showed that the method of
semi-continuous breeding of the fungus *Aspergillus niger*
accelerates fermentation. B. V. Perfil'yev, Leningrad
University reported on the results of investigations of the
natural microflora by the method of capillary microscopy which
he had developed.

V. A. Kordyum, Kiev University demonstrated his new batcher
for continuous breeding of microorganisms in laboratory
practice.

J. Vintik and J. Ricica (Czechoslovakia) expressed their
opinions on the methods of continuous breeding of micro-
organisms.

On this Conference it was pointed to the necessity of
organizing the industrial production of cultures for
continuous fermentation.

Card 4/4

MALKOV, Abo Markovich, prof., doktor tekhn. nauk; FISHER, P.N.,
spets. red.; KOVALEVSKAYA, A.I., red.; SATAROVA, A.M.,
tekhn. red.

[Technology of backer's and feed yeasts] Tekhnologija khle-
bopekarnykh i kormovykh drozhzhei. Moskva, Pishchepromizdat,
1962. 236 p. (MIRA 15:11)

(Yeast)

KOMAROVA, L.I.; VASIL'YEVA, K.A.; FISHER, P.N.

Production of protein-carbohydrate fodder from straw and corncobs.
(MIRA 16:12)
Sbor. trud. NIIGS 11:49-57 '63.

RIVKINA, Kh.I.; FISHER, P.H.; BULD'KIY, S.I.; VINITA, N.V.

Peat hydrolysis and obtaining feed yeasts on a base of peat
hydrolyzates. Trudy Kal. torf. inst. no.13:108-117 '63.
(MIRA 17:12)

FISHER, P.N.; KEYL', I.A.; VOROB'YEVA, G.I.; SHVARSKROYN, B.M.; ALYAMOVSKAYA,
T.S.; ZYBIN, S.Ye.; DRUZHININA, A.T.; SHILOV, Yu.P.

Growing yeast on hydrolysates from coniferous wood. Gidroliz.
i lesokhim. prom. 16 no.5:7-12 '63. (MIRA 17:2)

1. Moskovskoye otdeleniye Gosudarstvennogo nauchno-issledovatel'-skogo instituta gidroliznoy i sul'fitno-spirtovoy promyshlennosti (for Fisher, Keyl', Vorob'yeva, Shvartskroyh, Alyamovskaya).
2. Ivdel'skiy gidroliznyy zavod (for Zybin, Druzhinina, Shilov).

FISHER, P.N.; KOMAROVA, L.I.

Production of yeast from hydrol. Gidroliz. i lesokhim.prom. 17
no.2:14-16 '64. (MIRA 17:4)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut biosinteza
belkovykh veshchestv.

PL 10 24 '65

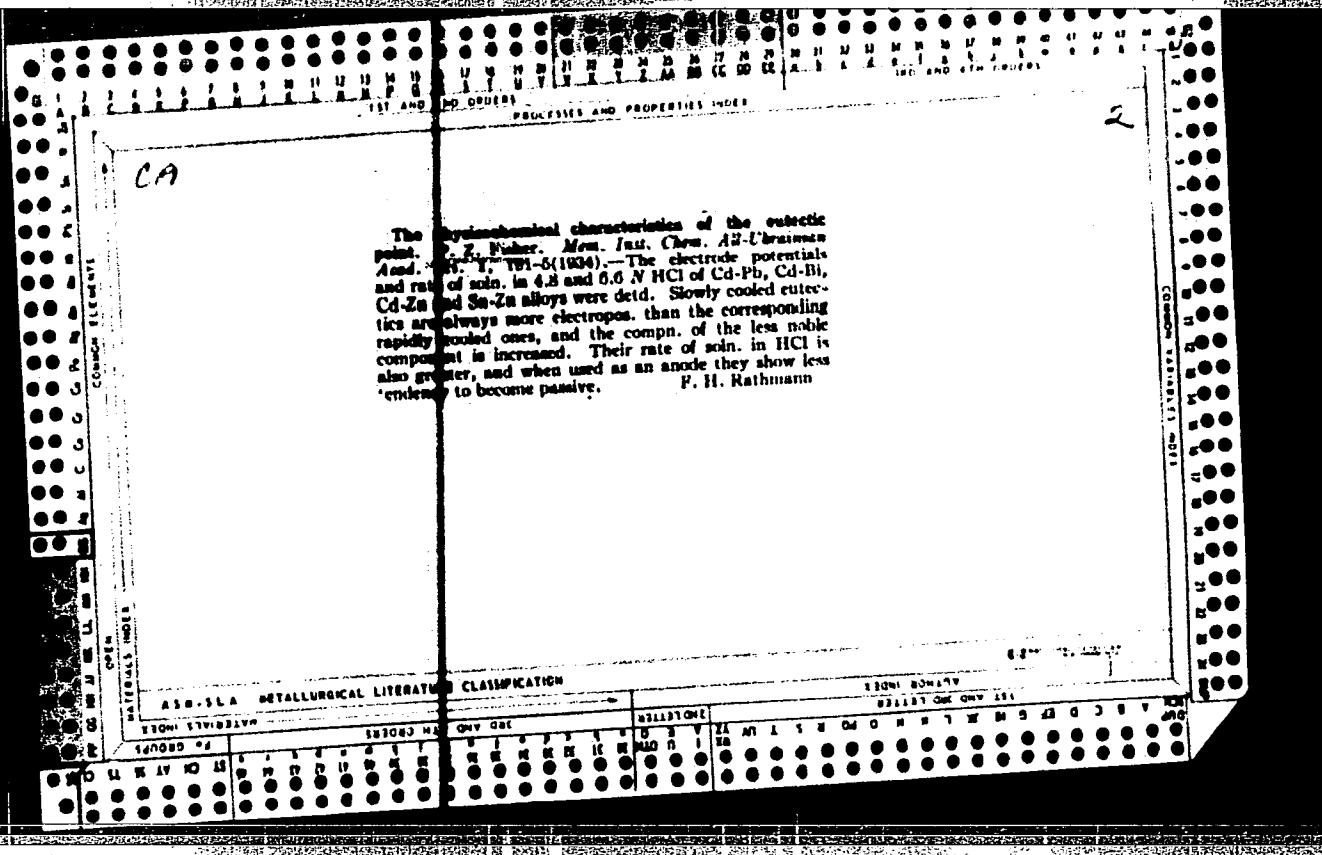
8c

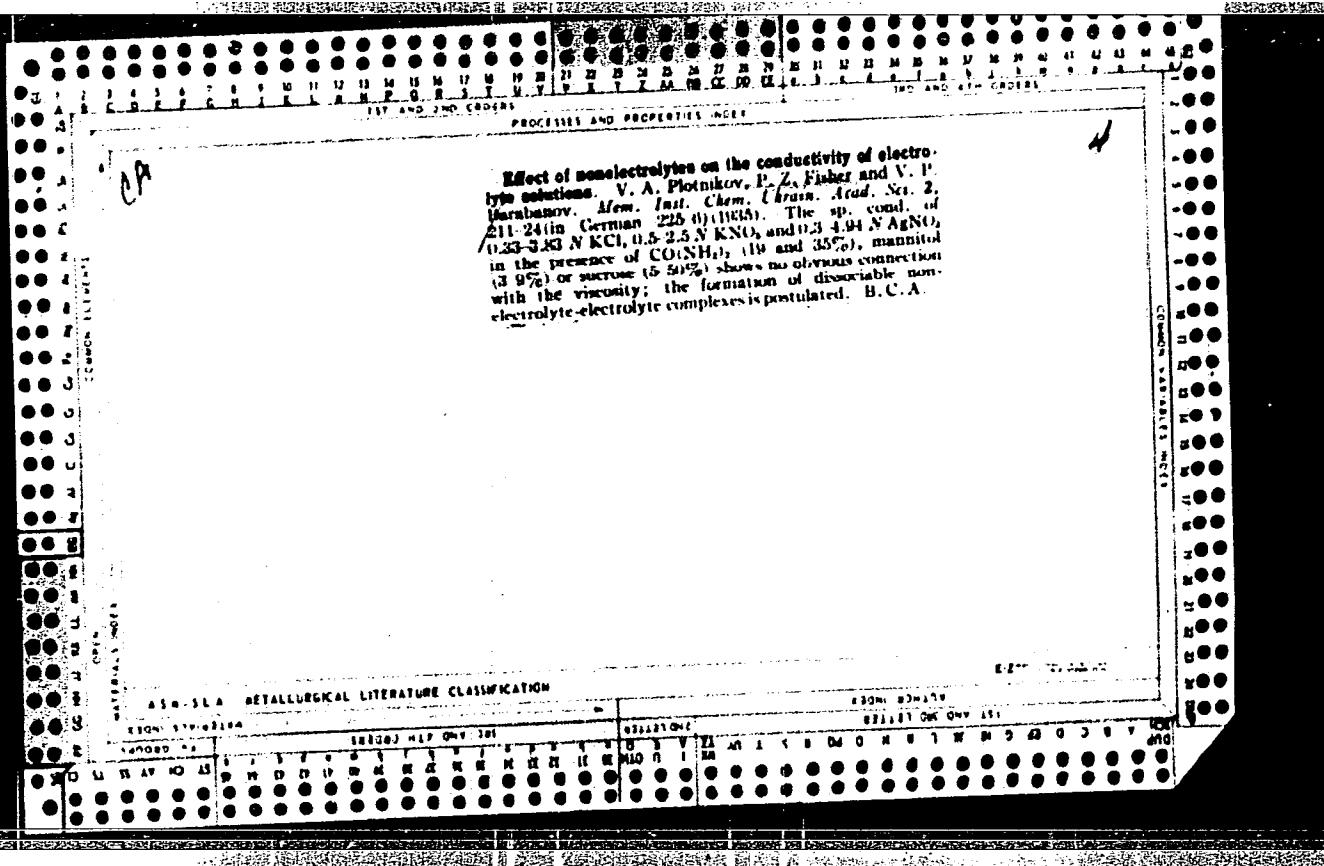
Electron paths in solutions during electrolysis using a suspending cathode. P. FRIEDEM and KATZ-
KIMBERG. (*J. Russ. Chem. Soc.*, 1898, 2, 5-6).—The
blue spots observed by Pianchovski and Rosenberg during
(A. 1922, II, 720) the $\text{KI}-\text{starch}$ solutions during
electrolysis with the cathode not immersed in the
solution, and ascribed by them to the action of
electrons discharged from the cathode, are in reality
due to O_2 . R. T.

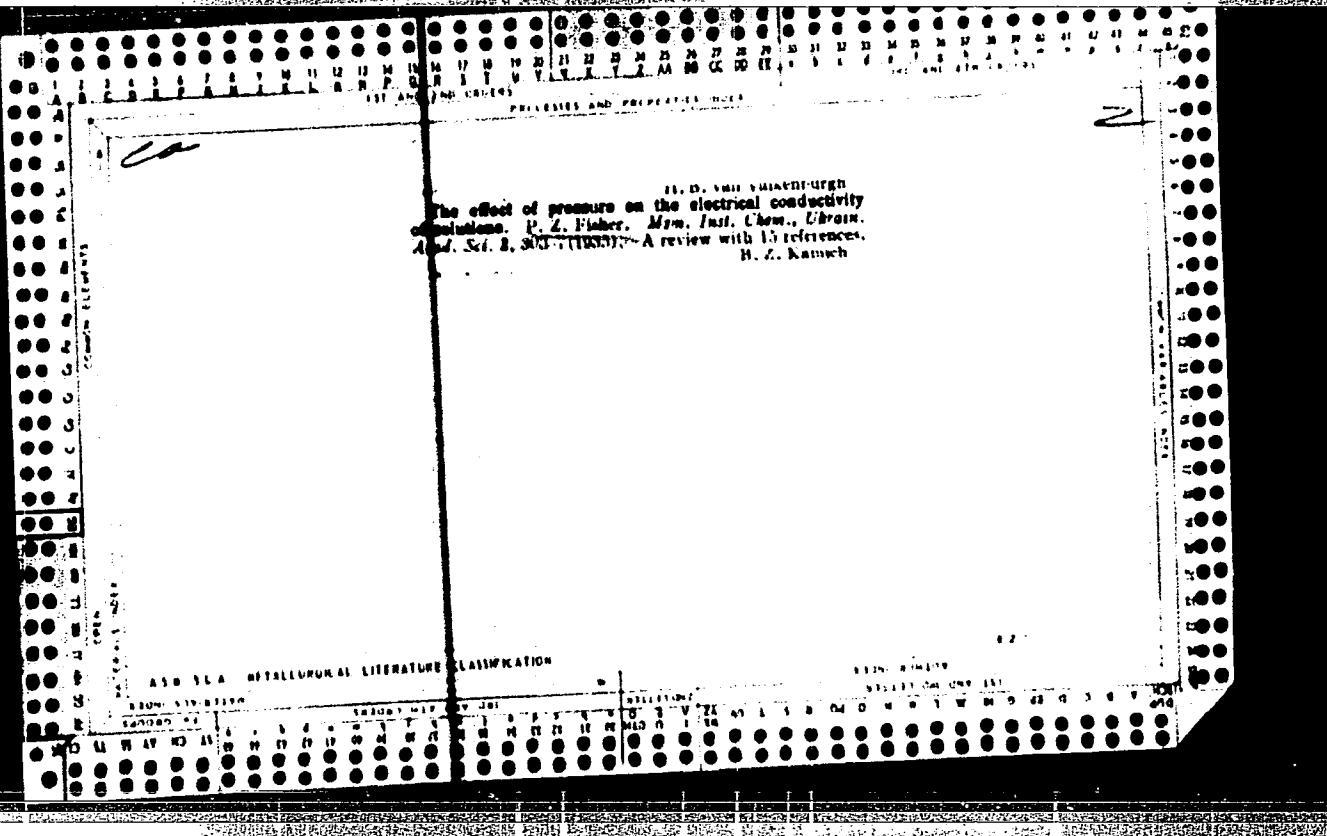
1ST AND 2ND QUARTER
PROCESSES AND PROPERTIES

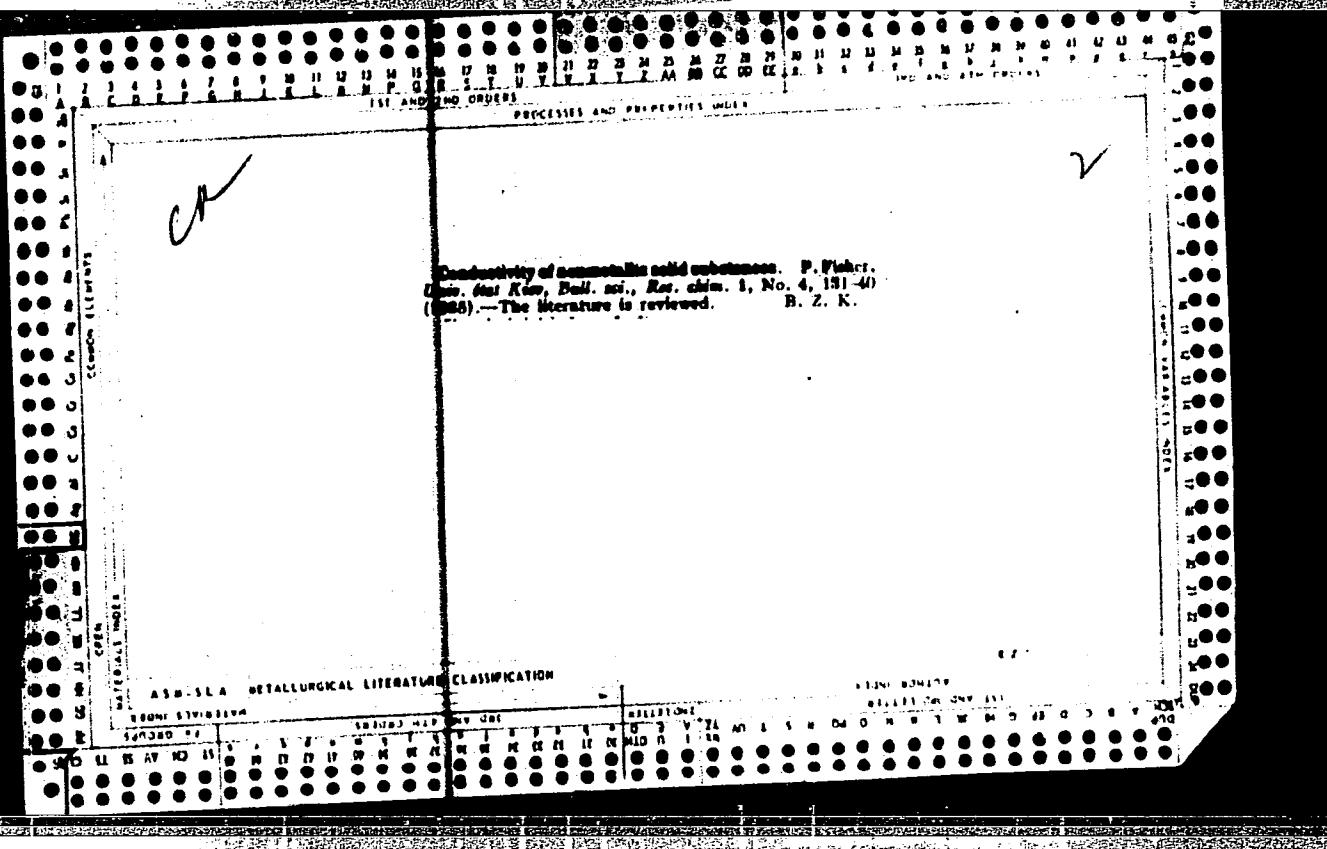
"The Difference Effect. P. Z. Fisher (*Zapiski Ind. Khem. Ukrains. Akad. Nauk (Mem. Inst. Chem. Ukrainian Acad. Sci.)*, 1934, 1, 103-110; *C. Abs.*, 1935, 29, 2903).—[In Ukrainian.] The "difference effect," observed by Thiel, Straumann, and Pietek, was studied for aluminum; aluminum alloys with antimony, silver, zinc, and lead; and for aluminum-platinum solid solutions in hydrochloric acid and potassium hydroxide. The magnitude of the difference effect, as determined by hydrogen evolved, is a function of time and decreases in hydrochloric acid but increases in potassium hydroxide. These results cannot be explained by the theories of T., S., and P.—B. G.

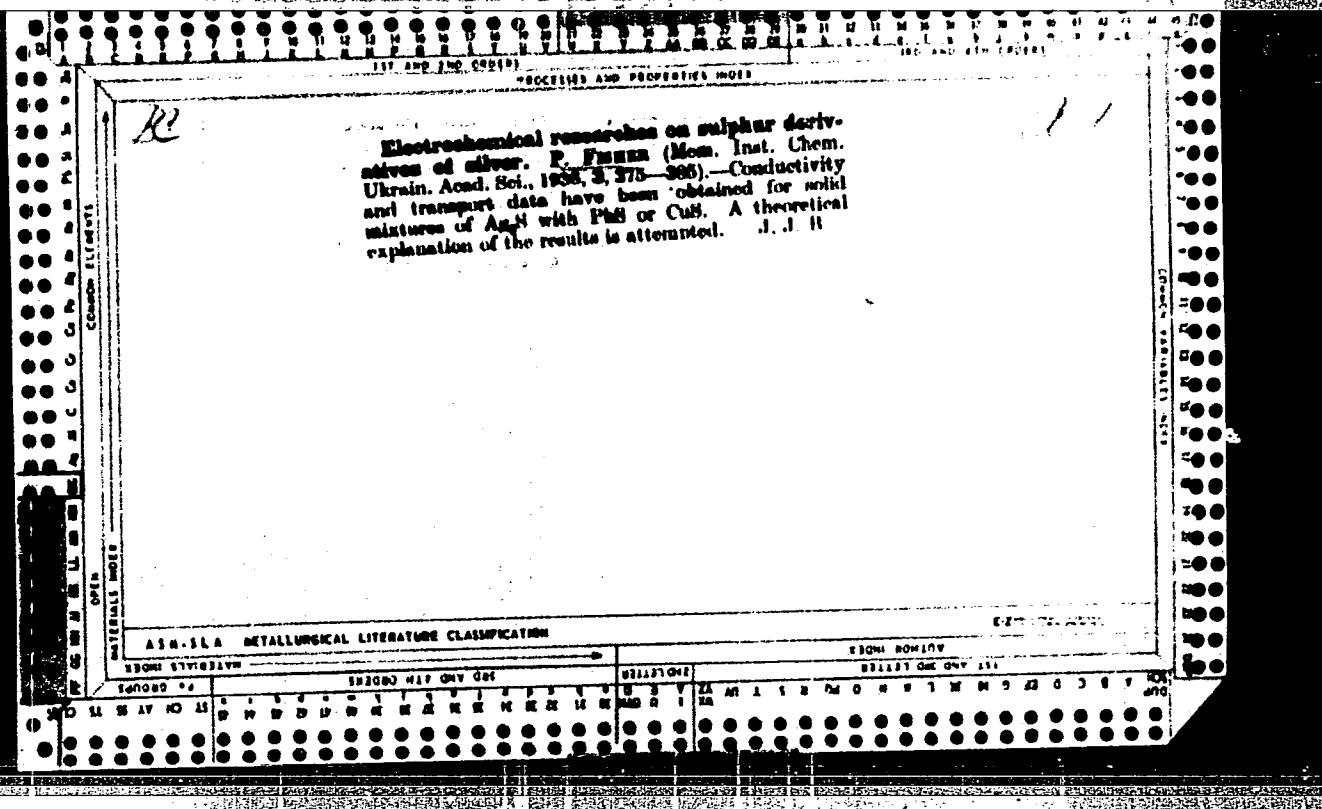
ASR-3A METALLURGICAL LITERATURE CLASSIFICATION







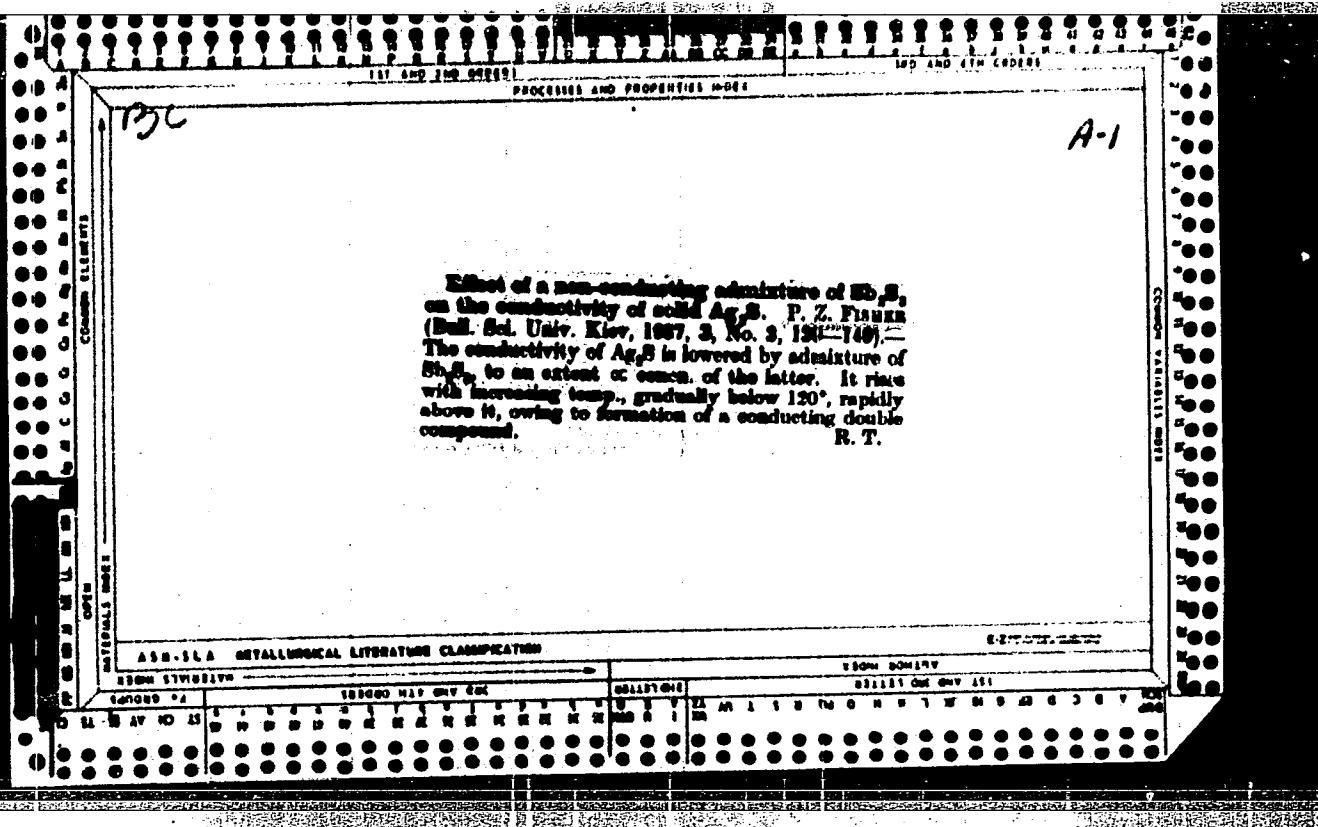




***Hydrogen Overvoltage on Amalgams.** P. Z. Fisher and V. F. Barabanov (*Univ. Ital. Kiev, Bull. sci., Recueil chim.*, 1936, 2, (2), 97-107; *C. Abstr.*, 1937, 31, 2939).—[In Ukrainian.] The effect of composition and structure of amalgams on the hydrogen overvoltage was studied. The amalgams used were: cadmium (1, 5, 10, 50, 60, 62.7, 80%), lead (1, 5, 10, 15, 20, 25, 30, 35, 40%), bismuth (5, 10, 15, 20, 25, 30%), and zinc (0.5, 1, 5, 10, 15, 20%). The customary set-up for measuring decomposition potentials was used, with an anode of platinumed platinum and a cathode of mercury or liquid amalgam. The overvoltage for amalgams varied with the percentage of mercury, but in the transition from liquid to solid it changes. Thus, for cadmium, zinc, and lead amalgams the overvoltage decreases in the transition from liquid to solid; for bismuth amalgams this did not occur.—S. G.

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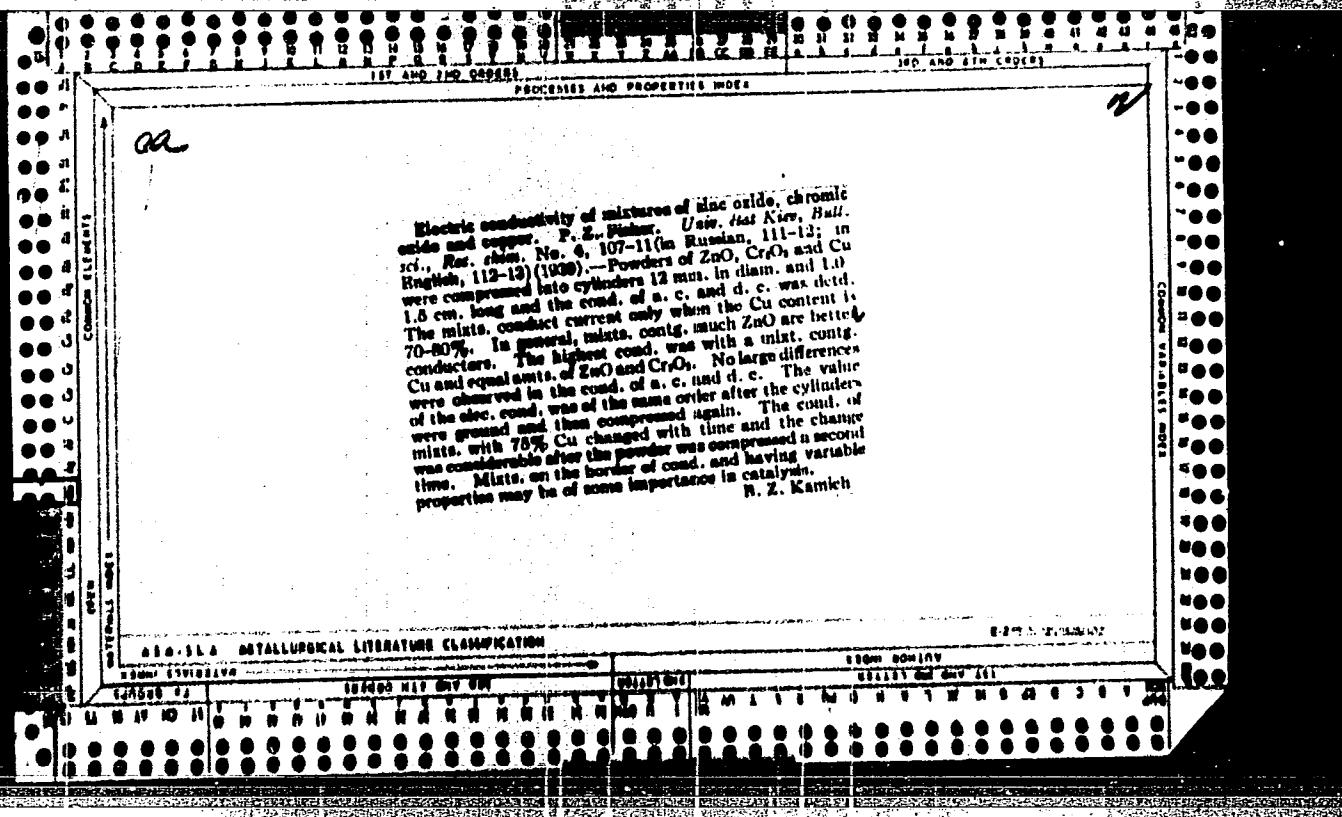
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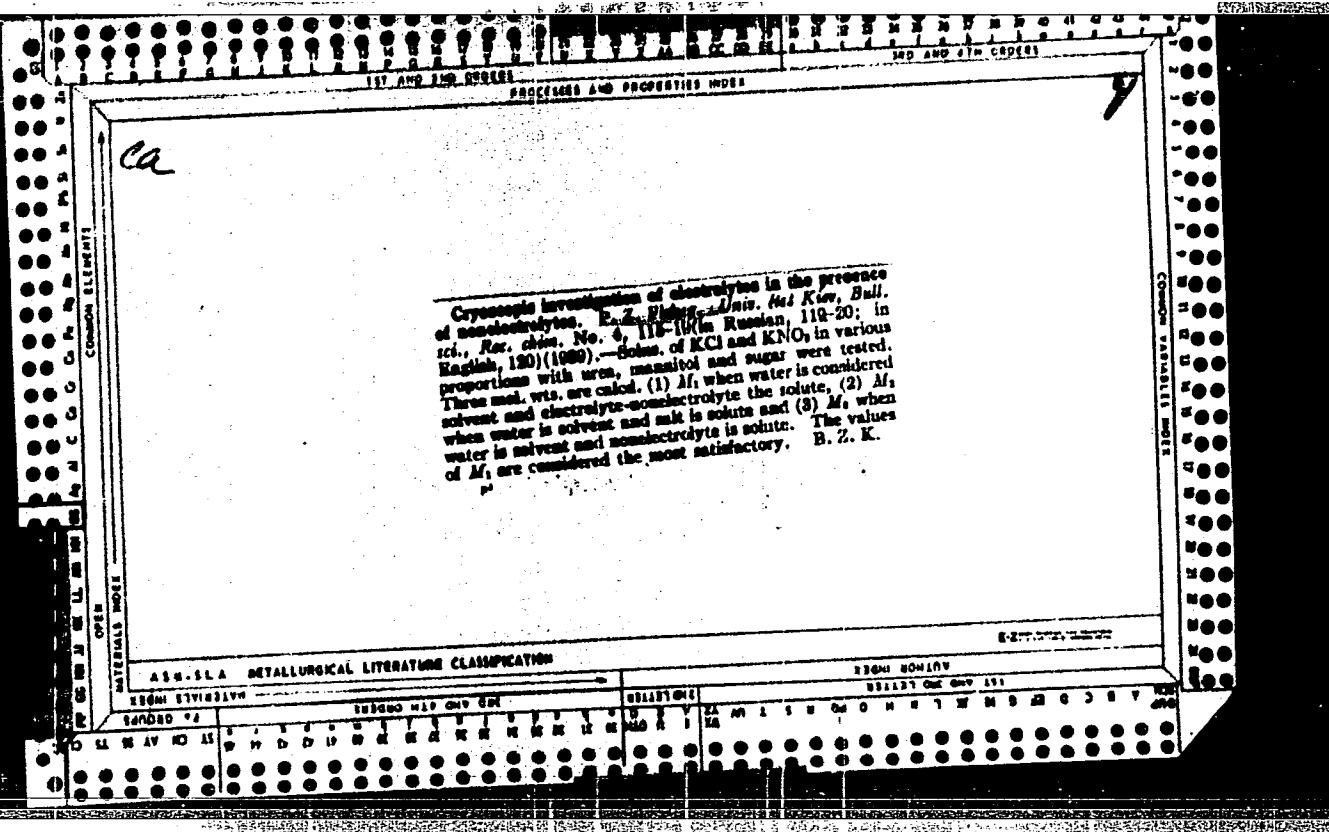
A-1

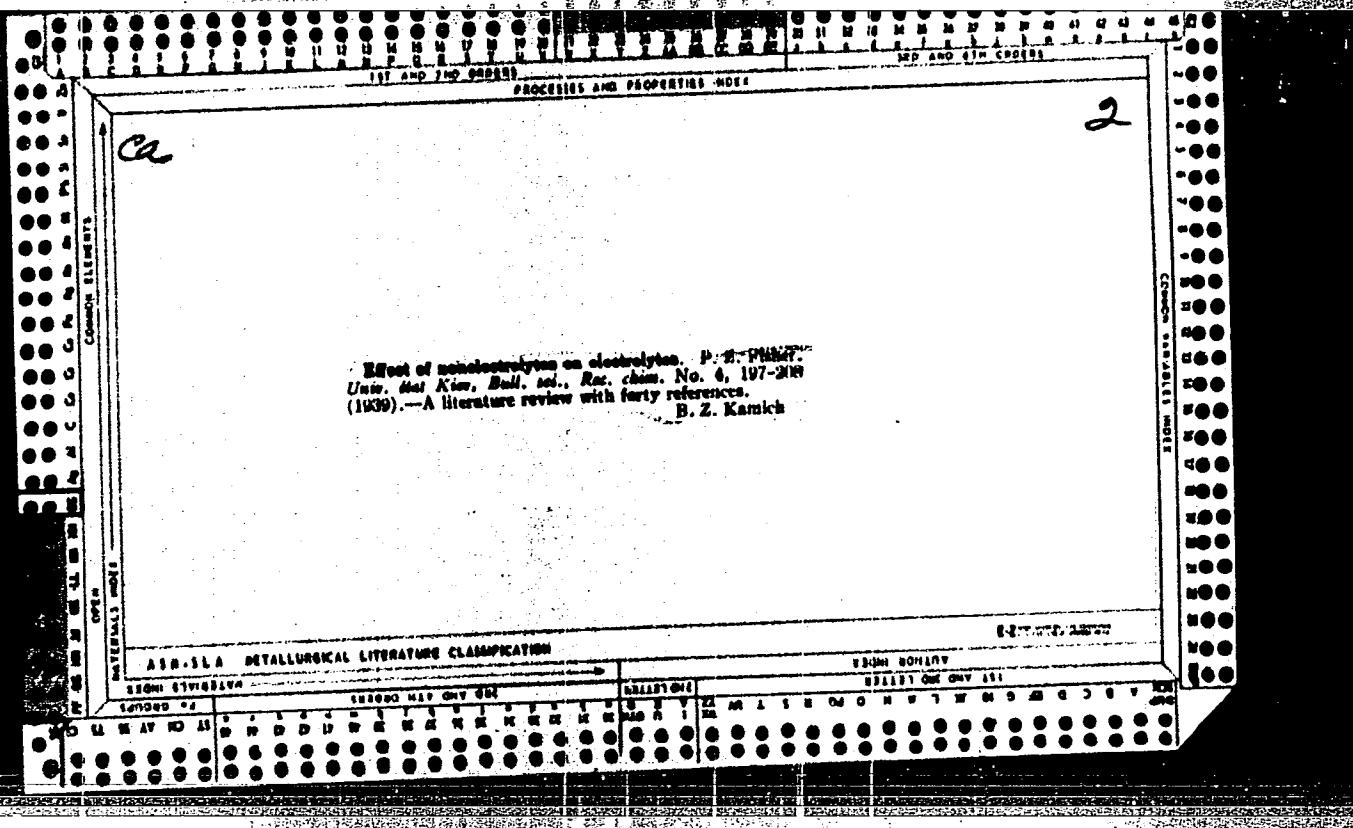
"Difference effect" of amalgams. P. Z.
FISHKA and T. E. KOVAL (Bull. Sci. Univ. Kiev, 1957,
No. 3, 181-189).—Positive and negative
"difference effects" were obtained with Na, K, and
Zn amalgams in 0.1N. and 15% HCl. It is concluded
that the effect cannot be connected with the formation
of a protective film, and that none of the theories
advanced adequately explains the phenomenon.

R. T.

ALO-514 METALLURGICAL LITERATURE CLASSIFICATION







FISHER, P.Z.; VYZGO, V.S.; CHERNILOVSKAYA, A.I.; TSYGANOV, G.A.

Potentials on electrodes nickel-plated from modified baths. Trudy
Inst. Khim., Akad. Nauk Uzbek. S.S.R., Obshchaya i Neorg. Khim. No.2,
152-63 '49. (MLRA 5:12)
(CA 47 no.17:8554 '53)

1. Inst. Khim., Uzbek. S.S.R.

NIGMANKHODZHAYEVA, M.S.;FISHER, P.Z.

Hydrogen overvoltage on electrically deposited iron-nickel alloys
as dependent on alkali concentration. Dokl. AN Uz SSR no.11:25-29
'57. (MIRA 11:5)

1. Institut khimii rastitel'nykh veshchestv AN UzSSR. Predstavлено
членом-корреспондентом AN UzSSR Kh.U. Usmanovym.
(Iron-nickel alloys) (Overvoltage)

NOGMANKHODZHAYEVA, M.S.; FISHER, P.Z.

Effect of alkali concentration on the overvoltage of hydrogen on
electrolytic iron-nickel alloys. Dokl. AN Uz. SSR no.6:21-25 '58.
(MIRA 11:9)

1. Institut khimii AN UzSSR. Predstavлено академиком AN UzSSR A.S.
Sadykovym.
(Iron-nickel alloys) (Electroplating)

ADILOV, T.A. & FISHER, P.Z. [deceased]

Oxygen overstress in the galvanic alloy nickel-magnesium.

Dokl. AN Uz.SSR. 21 no.3:21-22 '64.

(MIRA 1981)

I. Institut Khimii AN UzSSR. Submitted October 20, 1961.

3,2410 also 2412

26407
S/056/61/041/001/002/021
B102/B212

AUTHORS: Babetski, Ya. S., Buya, Z. A., Grigorov, N. L., Loskevich,
Ye. S., Massal'skiy, Ye. I., Olea', A. A., Shestoporov, V. Ya.,
Fisher, S.

TITLE: Nuclear-active particles in atmospheric showers

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 41,
no. 1 (7), 1961, 13 - 21

TEXT: The aim of the present paper has been to contribute to the clarification of the characteristics of elementary processes underlying the formation of an extensive air shower and also of the role played by the nuclear-active component in shower formation. A number of shower parameters have been determined (the energy E_{e-ph} of the electron-photon component, the energy transferred by π^0 mesons, and the ionizations I in the chamber rows) by employing an arrangement which has been described earlier by the authors (Ref. 4: ZhETF, 40, 1551, 1961). It consists of 126 ionization chambers (active area, 10 m^2). [Abstracter's note: In order to follow the

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Nuclear-active particles in...

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statements, a knowledge of Ref. 4 is required.] The measurements were made at sea level for both extensive and "young" atmospheric showers. Of all extensive atmospheric showers recorded, those with $J_{3,4} \geq 1.2 \cdot 10^4$ relativistic particles (i. e., $E_{e-ph} \geq 2 \cdot 10^{12}$ ev) have been selected. 264 such showers had been found after 1842 hours of measuring. (The ionization chambers were arranged in four rows; $E_{\gamma}/E_{e-ph} = J_{1,2}/J_{3,4}$ could be set in good approximation). A determination of the position of the axes of these extensive atmospheric showers showed that in about half of all cases the shower axis hit the instrument and in all other cases the axis was found nearby. It can thus be assumed that the mean value E_{γ}/E_{e-ph} measured refers to the central region of the shower. The selected showers with $J_{3,4} \geq 1.2 \cdot 10^4$ had a number of particles amounting to $\approx 10^5$, and $(J_{1,2}/J_{3,4}) = 0.130 \pm 0.047$ was obtained for them. For showers whose axes did hit the measuring arrangement this ratio was equal to 0.126 ± 0.036 . Assuming that the ionization by nuclear-active particles was not a function of the location of the chamber in the arrangement, then it follows that the

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electron-photon component in row 1 increases the ionization by $30 \pm 7.5\%$. From this it follows that $(E_{\gamma}/E_{e-ph}) = 0.091 \pm 0.031$; if the angular distribution in an extensive atmospheric shower is taken into account, one obtains 0.097 ± 0.036 . Table 2 shows the ionization ratios for various shower groups. Special investigations which have been made for "young" atmospheric showers (1900 hours, 52 "young" atmospheric showers with $J_{3,4} > 1.2 \cdot 10^4$ relativistic particles) yielded the following results: The intensity of these showers "young" atmospheric showers was equal to $0.95 \pm 0.13 \cdot 10^{-10} \text{ cm}^{-2} \text{ sec}^{-1}$, and the energy of the electron-photon component was not less than $2 \cdot 10^{12} \text{ ev}$. The ionization in the third chamber row was always 1.5 - 2 times higher than that in the fourth row. The intensity of individual showers ($J_2 \geq 1.2 \cdot 10^4$) measured in the second row was equal to $2 \cdot 10^{11} \text{ cm}^{-2} \text{ sec}^{-1}$. The J_3 or E_{e-ph} distribution of the "young" showers can be described by $N(\geq J_3) = AJ_3^{-\gamma}$, where $\gamma = 1.5 \pm 0.4$. Some cases have been found with $E_{e-ph} \geq 10^{13} \text{ ev}$. These "young" showers

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proved to be starts of extensive atmospheric showers with $N \sim 10^4$ at most. For these 52 "young" atmospheric showers a value of $(J_{1,2}/J_3) = 0.11 \pm 0.03$ has been found, i. e., it was nearly equal to that of extensive atmospheric with $J_3 \geq 1.2 \cdot 10^4$. An estimation of the ratio of the energy of nuclear-active particles to the energy of the electron-photon component furnishes a value that is 2.5 - 2 times smaller than that found earlier (by assuming an inelasticity coefficient $K \approx 0.3$; cf. ZhETF, 36, 751, 1959). Therefore, it has to be assumed that $K \approx 0.75 - 0.6$. Furthermore, it has been found that near the axes of extensive atmospheric showers the energy of nuclear-active particles is less than 50 % of the energy of the electron-component ($E_{n.a.}/E_{e-ph} = 0.40 \pm 0.14$), and that in about 30 % of all "young" atmospheric showers the nuclear-active component is practically absent. There are 5 figures, 2 tables, and 6 Soviet-bloc references.

ASSOCIATION: Institut yadernoy fiziki Moskovskogo gosudarstvennogo universiteta (Institute of Nuclear Physics of Moscow State University)

Card 4/5

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FISHER, S.L.

4655 Production of supplies (including new books)
Bilingual Library Subject and A. Webster
Reference and D. L. T. K. C. G. C. 62

4656 M. S. N. Library - New Books
Bilingual Library Subject and A. Webster

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"APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000413310009-0

rubber by the aqueous emulsion polymerization of
alpha-methyl styrene. The initiator is a mixture of
sodium dibutyl naphthalene sulfonate and sodium
stearate or the sodium salt of a similar fatty acid.
The mechanisms of regulation, acceleration, and
other aspects are described. There are 65 references.

ISDN:MDA5.1211

CH 106

APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000413310009-0"

FISHER, S. L.

AUTHORS: Radchenko, I. I. and Fisher, S. L. 138-1-2/16
TITLE: 1, 3-Butadiene Copolymers with a High Styrene Content.
(Sopolimery divinila s vysokim soderzhaniem stirola).
PERIODICAL: Kauchuk i Rezina, 1958, Nr. 1. pp. 3 - 9. (USSR).

ABSTRACT: Synthetic rubber, produced by polymerisation of 1,3-butadiene in aqueous emulsions, possesses a high degree of elasticity, low physico-mechanical properties, and poor technological properties. The technological properties are improved when the polymerisation is carried out in the presence of a polymerisation regulator, but at the same time the degree of elasticity and physico-mechanical properties are lowered. When a mixture consisting of 70% 1,3-butadiene and 30% styrene is polymerised, the degree of elasticity is slightly lower, but the end product has high physico-mechanical and technological properties (e.g. CKC-30, CKC-30A, 5УН-ЭС-3, 4ХН-АР-ЭС which are used for the manufacture of car tyres). The elastic properties deteriorate and the plastic properties improve when the styrene content in the mixture is further increased. Rubber containing 50% 1,3-butadiene and 50% styrene has low elastic properties but sufficiently high physico-

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1,3-Butadiene Copolymers with a High Styrene Content. 138-1-2/16
mechanical properties, and is used in the shoe industry
and for the manufacture of various rubber goods. A
plastic composition is obtained when the styrene con-
tent reaches 80 and 90%; these composition are similar
to polystyrene-1,3-butadiene copolymers with a high
styrene content, and are often called styrene-containing
or polystyrene-containing synthetic resins. The polymer
CKC-50 (similar to the German Buna S-S) can be prepared
when the Na salt of dibutyl naphthylsulphate with a
small quantity of sodium stearate is used as emulsifier.
CKC-50 has very good technological as well as physico-
(Yc-3) consists of a mixture of 15% 1,3-butadiene and
85% styrene. It is a white thermoplastic powder which
is resistant to oxidation and other chemical reactions.
1,3-butadiene copolymers containing 12.5 to 87.5% styrene
have been prepared by emulsion polymerisation at a
temperature of 50°C. The composition of the copolymers
was determined by ultra-violet spectrophotometry, and
also according to the quantity of unreacted monomers.
A detailed investigation of the composition of 1,3-
butadiene-styrene copolymers was carried out by S. S.
Medvedev et al. Polymerisation was carried out in

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1,3-Butadiene Copolymers with a High Styrene Content. 138-1-2/16

the presence of benzoyl peroxide at 60°C. The styrene in the copolymers was determined by refractometry, and according to the content of unsaturated bonds. The work of I. M. Mitchell (Ref.3) is discussed. The various Marbon resins and Butakon-S are mentioned. In the USSR 1,3-butadiene styrene and 1,3-butadiene-methyl-styrene, containing not more than 26-27% styrene or methyl-styrene, are produced. The preparation of 1,3-butadiene copolymers with a high content of styrene and alpha methyl styrene - CKC-50, CKC-90 and CKC-40Д is discussed. Details of the preparation are tabulated (Fig.1). Figures 1, 2 and 3 give graphs on the depths of polymerisation. The physico-mechanical properties of vulcanised rubber CKC-50 are shown in Table 2 and 4 and the plasticity of CKC-50 in Table 3. Investigations carried out by ВНИИСК and by the Moscow Factory "Kayuk" showed that CKC-50 can be used for hard rubber goods, for frost-resistant conveyor belts, and also as additive for improving the properties of mixtures based on the rubber CKC-30. Alpha-methyl-

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styrene is also used for the preparation of 1,3 butadiene-alpha-methyl styrene rubber CKMC-50. Alpha-méthyl styrene is less active than styrene; it is used for the industrial production of CKMC-30 (1,3-butadiene alpha-methyl styrene). Details of the copolymerisation of alpha-methyl styrene with 1,3-butadiene are given in Table 5. Table 6 gives the physico-mechanical properties of CKMC-50 vulcanisates. The copolymer CKC-90 was prepared at 50°C and a 60% polymerisation was achieved during 10-12 hours. At the completion of the polymerisation reaction 3% anti-oxidant Neozon D (phenyl-beta-naphthyl amine) is added. Surface tension of the latex = 39-40 Dyn/cm. The latex CKC-30 and CKC-90 were mixed in such proportions that the total styrene content = 40%, this gave the copolymer CKC-40Δ. CKC-50 (prepared with the help of D. G. Bril') was made by coagulation, washing and drying of CKC-40Δ. The thermo-plastic properties of CKC-40Δ and CKC-50 are given in Table 7, and the physico-mechanical properties of CKC-40Δ vulcanisates in Table 8. The synthesized copolymers can be used for the manufacture of various

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1,3-Butadiene Copolymers with a High Styrene Content. 138-1-2/16

rubber goods and high quality microporous soles.
There are 6 Tables, 4 Figures, 10 References: 7
English, 3 Russian.

ASSOCIATION: All-Union Scientific Research Institute for
Synthetic rubber im S. V. Lebedev. (Vsesoyuznyy nauchno-
issledovatel'skiy institut-sinteticheskogo kauchuka
im S. V. Lebedeva)

AVAILABLE: Library of Congress.

Card 5/5

ZVEREV, A.G.; FISHER, S.L.

High-styrene rubbers. Biul. tekhn.-ekon. inform. no.3:44-45 '58.
(Rubber, Synthetic) (MIRA 11:6)

159201

11.22.11

26989

S/138/61/000/005/002/006
A051/A129

AUTHORS:

Radchenko, I. I., Fisher, S. L., Korchmarek, V. V., Kuznetsov, V. L.,
Bryl', D. G., Lyashch, R. S., Valenina, V. F.

TITLE:

Polymerization of butadiene with styrene in emulsion using colophony
soap at a temperature of 5°C

PERIODICAL: Kauchuk i rezina, no. 5, 1961, 5 - 11

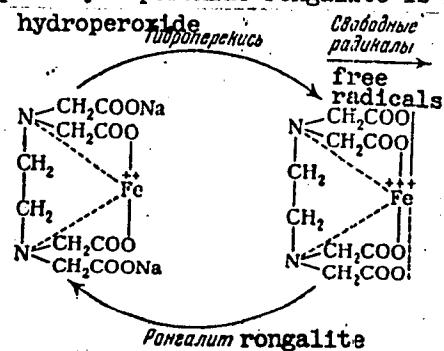
TEXT: Several polymerization formulations have been developed, of which only a few are suitable for industrial use. Hydrogen peroxide hydrocarbons are usually used as the initiators and various compounds with reducing properties as activators, such as ferrous sulfate, sodium sulfite, etc. Coagulation of the latex is caused by large quantities of electrolytes. Daksad serves as disperser. Daksad is a neutralized condensation product of naphthalenesulfoacid with formaldehyde. The higher mercaptanes, e.g., dodecylmercaptane and a mixture of C₁₂-C₆, are used as regulator in the production of butadiene-styrene rubbers. The best-known polymerization formulation is iron-pyrophosphate, where a complex formed from the interaction of potassium pyrophosphate with ferrous sulfate is used as activator. Special attention is drawn to the iron-trilon formulation. An increase in the iron

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Polymerization of butadiene with styrene in...

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content in rubber is contra-indicated, since it causes premature oxidation and aging. A complex formed from the interaction of trilon B and ferrous sulfate is used as activator in the iron-trilon formulation. The purpose of the present work was to study the process of polymerization of butadiene with styrene carried out according to the iron-trilon and iron-pyrophosphate formulations, and to perfect these formulations for industrial use. Colophony soap and its mixture with fatty acid soap were used as emulsifiers. The scheme of the mechanism of the action of the system iron-trilon complex-hydroperoxide-rongalite is given:



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An iron-trilon formulation in two variants: for polymerization with colophony emulsifier and for polymerization with its mixtures with fatty-acid emulsifier at the ratio 1 : 1 was developed on the base of the conducted experiments. The formulations were checked under pilot plant conditions by S. L. Fisher, I. I. Radchenko, A. M. Perminov, E. G. Lazaryants, V. L. Tsaylingol'd et al. (report of VNIISK-NIIMSK, no. 013034, 1960). Four types of experimental batches of butadiene-styrene rubber were prepared: CKC-30APK (SKS-30ARK) with colophony emulsifier (with a hardness of 600 - 800 g not containing mineral oil) and using a mixture of colophony and fatty-acid emulsifier at the ratio of 1 : 1, and also CKC-30AMPK (SKS-30AMRK) with a mixture of colophony and fatty-acid soap at a ratio of 1 : 1, containing 20 w.p. of ПН-6 (PN-6) oil with a Defoe hardness of 600 - 800 g (before introducing the oil 1,200 - 1,400 g) and containing 37.5 w.p. of PN-6 oil with a Defoe hardness of 600 - 800 g (before introducing the oil 2,000 - 2,200 g). The prepared rubbers SKS-30ARK and SKS-30AMRK had the following indices:

	SKS-30ARK	SKS-30AMRK-20
content of free colophony acids, %	6.3	5.5
content of bound colophony acids, %	0.35	0.15
iron content, %	0.017	0.012
Defoe hardness, g	540	650

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Polymerization of butadiene with styrene in... **26989** S/138/61/000/005/002/006
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	SKS-30ARK	SKS-30AMRK-20
tear resistance, kg/cm ²	281	256
relative elongation, %	680	550
residual elongation, %	24	22
elasticity, %	34	29

The iron-pyrophosphate formulation (report of Giprokauchuk no. 010017, 010851, 010889, 1955-56) was further investigated. For the polymerization of butadiene with styrene the following formulation was used: butadiene ... 70, styrene ... 30, dresinate 731 ... 4.5, hydroperoxide n-methane ... 0.08, FeSO₄·7H₂O ... 0.16, K₄P₂O₇ ... 0.18, sodium ethylenediaminetetraacetate (versen, trilon B) ... 0.01, daksad ... 0.15, Na₃PO₄·12H₂O ... 0.5, tertiary dodecylmercaptane (sulfol B-8) ... 0.18, water ... 200 (in w.p.). It is pointed out that with an increase in the regulating action of the diperoxide the rate of polymerization dropped almost by 1.5 times. When using the monohydroperoxide of diisopropylbenzene the duration of the polymerization was 12 - 14 hrs, when replacing it by hydroperoxide of 1,1-diphenylethane 9 - 10 hrs. On the basis of the conducted work the formulation of iron-pyrophosphate using potassium soap of colophony was developed. This formulation was tested under pilot plant conditions (report of the VNIISK-NIIMSK, no. 013094,

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Polymerization of butadiene with styrene in...

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1960). The prepared experimental butadiene-styrene rubber had the following indices: content of free colophony acids, % ... 5.8, content of bound colophony acids, % ... 0.25, content of iron, % ... 0.02, defoee hardness, g ... 550, tear resistance, kg/cm² ... 269, relative elongation, % ... 650, residual elongation, % ... 23, elasticity, % ... 29. In the conclusion the authors recommend sodium dimethylthiocarbamate to be used as the interrupter of polymerization. There are 9 graphs and 5 references: 2 Soviet-bloc, 3 non-Soviet-bloc. The references to the English-language publications read as follows: R. Frank, J. Polym. Sci., 3, no. 1, 39 (1948); L. Howland, Rubb. World, 130, no. 5, 647 (1954); R. Brown et al., Ind. Eng. Chem., 46, no. 5, 1073 (1954).

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut sinteticheskogo kauchuka im. S. V. Lebedeva (All-Union Scientific Research Institute of Synthetic Rubber im. S. V. Lebedev) 

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45566
S/138/63/000/001/002/008
A051/A126

15.926 |

AUTHORS: Fisher, S. I., Perminov, A. M., Radchenko, I. I., Poddubniy, I. Ya.,
Lobach, M. I., Belgorodskii, I. M.

TITLE: Production of butadiene-styrene (methylstyrene) rubbers according
to an iron-trilon-rongalite composition using a colophony emulsifier

PERIODICAL: Kauchuk i rezina, no. 1, 1963, 9 - 15

TEXT: Effective compositions of polymerization have been introduced by the
authors for emulsion rubbers-iron-pyrophosphate and iron-trilon-rongalite, satis-
fying industrial requirements. The suggested compositions are less sensitive to
foreign admixtures contained in disproportionated colophony. The industrial pro-
duction of the iron-trilon complex is easier than that of the iron-pyrophosphate
complex. The described composition was used first at the Kuybyshev SR Plant in
1961 for the production of butadiene-methylstyrene rubber CKMC-30 APKM-15
(SKMS-30 ARKM-15). The suggested composition has been perfected by further in-
tensifying the polymerization process and improving the rubber qualities. The
experiments were conducted using: 92 - 94% butadiene-rectificate; 98% methylsty-
rene; 99.4% styrene; colophony, disproportionated with acidic number 165, con-

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Production of butadiene-styrene (methylstyrene) rubbers.. A051/A126

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taining abietene acids (1.8 - 2.5%); hyperis, containing 90.8% hydrogen peroxide; 90.8% monohydrogen peroxide disopropylbenzene, containing 35% hydrogen peroxide; tertiarydodecylmercaptane, 95% concentrated. An autoclave of periodic action was used. The experimental results led to the following changes in the composition: 94 - 96% butadiene-rectificate; 98.5% methylstyrene, produced by dehydration of isopropylbenzene; disproportionated colophony, produced on a palladium catalyst by the continuous method with acidic number 163 - 164, and containing abietene acids - (2.5 - 4.9%); commercial stearene acid; 95% tertiary dodecylmercaptane $d_{20}^{0.8616}$, $D_{20}^{1.4685}$; softened water with a total hardness of 0.029 mg.equiv./l and iron content - 0.15 - 0.34%. The resulting SKMS-30 ARKM-15 commercial rubber is characterized by the absence of noticeable quantities of high-molecular fractions. It is similar to SKS-30 ARM-15 and SKMS-30 ARM 15 in its plastic properties mix scorching and spraying resistance. Studies have been conducted on the possibility of further reducing the emulsifier quantity in the production of butadiene-styrene and butadienemethylstyrene rubbers. It was found that: a) by reducing the emulsifier quantity from 5.8 to 5.2 weight parts, the polymerization duration does not change; b) by reducing the emulsifier quantity from 5.8 to 4.8 w.p., the duration remains the same if the trilon B is increased from 0.04 to 0.05 w.p.

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Production of butadiene-styrene (methylstyrene) rubbers.. A051/A126 S/138/63/000/001/002/008

Thus, the latex stability is not affected by the reduction in emulsifier. Therefore, the latter can be reduced by 10.17%. The application of the iron-trilon-
-rongalite polymerization composition has been recommended for the production of
butadiene-styrene rubbers in other SR plants. There are 6 figures and 4 tables.

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(All-Union Scientific Research Institute of Synthetic Rubber im.
S. V. Lebedev)

f-

Card 3/3

ACCESSION NR: AP4034468

S/0138/64/000/004/0001/0006

AUTHORS: Radchenko, I. I.; Bashkatov, T. V.; Fisher, S. L.; Rabinerzon, M. A.; Perminov, A. M.

TITLE: Improved production of butadiene-methylstyrene (styrene) rubbers

SOURCE: Kauchuk i rezina, no. 4, 1964, 1-6

TOPIC TAGS: rubber polymerization, styrene rubber, butadiene-methylstyrene rubber, iron trilon rongalite, rubber resin emulsifier, peroxide rubber initiator, latex coagulation, granular rubber, tape rubber, molecular weight distribution, rubber SKS 30ARK, rubber SKS 30ARKM 27

ABSTRACT: Recent progress in the production of butadiene-methylstyrene (styrene) (BMS) rubber is reviewed. The use of the iron-trilon-rongalite activator complex resulted in an average 30-35% increase in the polymerization rate, and the application of more active initiators could bring further improvement. Data are presented on the effect of various fractions of resin on the BMS polymerization rate. The purified product was found to act as an accelerator, while the impurities exhibited inhibitory properties. The role of soaps as emulsifiers is

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ACCESSION NR: AP4034468

discussed, and the importance of a properly conducted coagulation process of the latex is stressed. The effect of neutral salts and acids is explained, and the advantage of obtaining a granular type BMS polymer is emphasized. A flow sheet and a description of the coagulation process in the manufacture of rubber SKMS-30ARKM-15 is given. The physicomechanical properties of this rubber and of experimental rubbers SKS-30ARK and SKS-30ARKM-27 are presented. The distribution of fractions of various molecular weights in the last two rubbers was studied by means of ultracentrifugal sedimentation. It was found that these rubbers were nearly identical in some physicomechanical properties with the foreign-made Europrene 1500 and 1712. Orig. art. has: 3 tables and 6 charts.

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SUBMITTED: 00

DATE ACQ: 13May64

ENCL: 00

SUB CODE: MT

NO REF Sov: 004

OTHER: 003

Card 2/2

L 23008-66 FSS-2/EWT(1)/EWT(m)/ETC(f)/EWG(m) JD/HW
ACC NR: AP6007662

SOURCE CODE: UR/0413/66/000/003/0031/0031

AUTHOR: Rozovskiy, V. M.; Fisher, T. L.; Bashalina, Yu. I.; Chebakova, N. A.; Kuz'min, V. A.; Maklyarskaya, A. A.; Avdeyeva, I. D.; Gavrilina, L. V.

51
B

ORG: none

TITLE: Iron-nickel alkaline battery. Class 21, No. 178401 [announced by the Scientific-Research Institute for Chemical Current (Nauchno-issledovatel'skiy institut khimicheskikh istochnikov toka)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 3, 1966, 31

TOPIC TAGS: battery, alkaline cell

ABSTRACT: An Author Certificate has been issued for an iron-nickel alkaline battery with lamellar-perforated electrodes of which the negative one is made from hydrogen-reduced iron. In order to increase the capacity at low temperatures and after prolonged discharge, the active mass of the iron electrode is supplemented with additions of antimony oxide and sulfide sulfur. The additions range from 2--4% for antimony oxide and 0.4--0.6% for sulfide sulfur. The iron electrode is

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UDC: 621.355.8

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L 23008-66

ACC NR: AP6007662

produced in the form of lamellar tape with 16 to 18% open surface.

[LD] O

SUB CODE: 10/

SUBM DATE: 13Aug64/

Card 2/2 *pls*

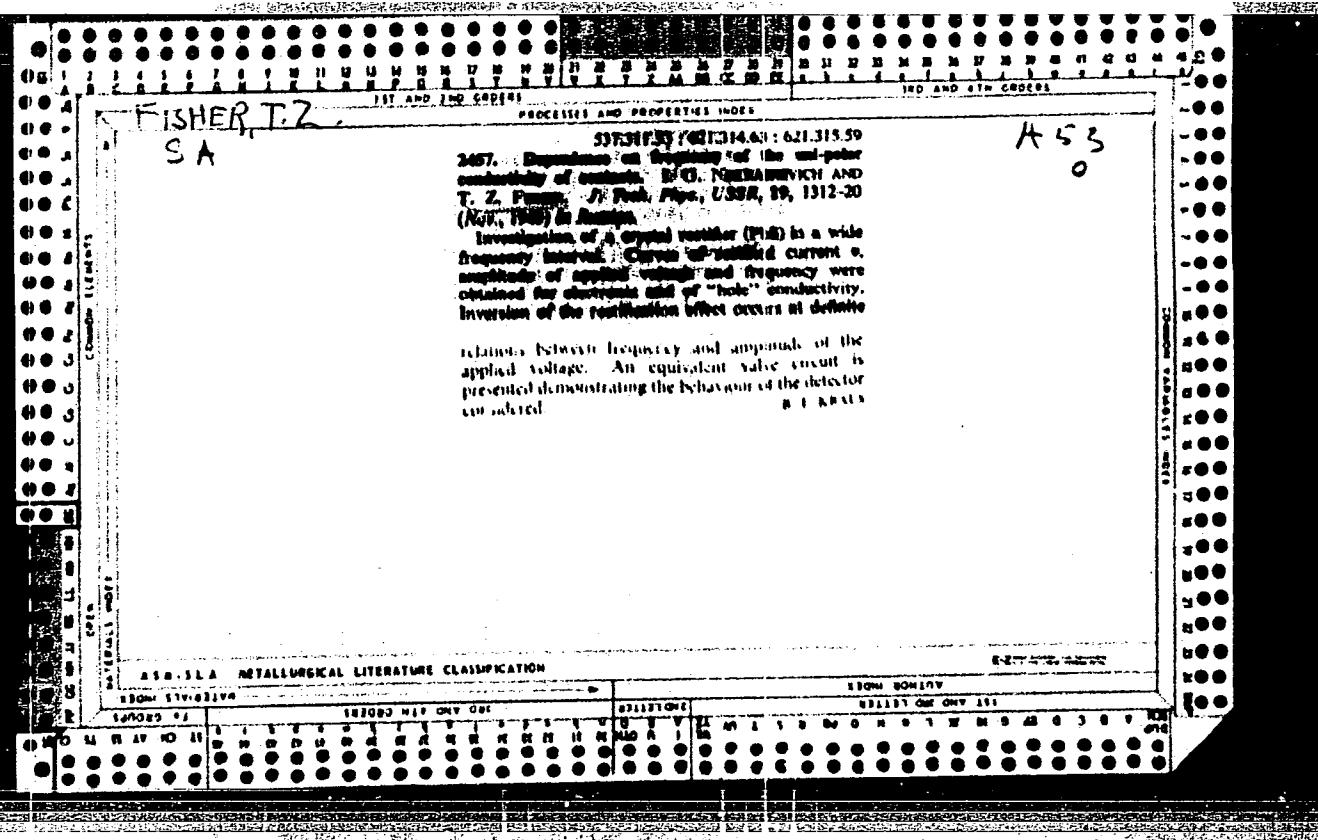
APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000413310009-0"

ISAYEV, Mikheil Porfir'yevich; ZAHELIN, Vladimir Andreyevich; FISHER,
S.Ya., red.; TEPLYAKOV, S.M., red.; YASHIN, P.M., red.;
VORONTSOVA, Z.Z., tekhn. red.

[The IZh-56" and "IZh-IUpiter" motorcycles; construction,
maintenance and driving] Mototsikly "IZh-56" i "IZh-IUpiter";
ustroistvo, ukhod i obsluzhivanie. Pod'obshchel red. S.IA.
Fishera i S.M.Tepliakova. Izhevsk, Udmurtskoe knizhnoe izd-vo,
1961. 207 p. (MIRA 15:3)

(Motorcycles)



FISHER, V.N.

Significance of the symptom of arborization of the mucus of the cervical canal in determining ovarian function. Vop. okh. mat. i det. 5 no.6:54-56 N-D '60. (MIRA 13:12).

l. Iz kafedry akusherstva i ginekologii (zav. prof. L.S.Persianinov) lechebnogo fakul'teta II Moskovskogo gosudarstvennogo meditsinskogo instituta.

(UTERUS)

(MUCUS)

FISHER, V.N., aspirant

Significance of the symptom of arborization of the mucus of the cervix uteri for a study of sterility in women. Akush. i gin. 36 no.5:2-4 S-0 '60. (MIRA 13:11)

1. Iz kafedry akusherstva i ginekologii (sav. - chlen-korrespondent AMN SSSR prof. L.S. Pershaninov) lechebnogo fakul'teta II Moskovskogo meditsinskogo instituta imeni N.I. Pirogova.
(STERILITY)

E. S. D. E. K. V.
EXCERPTA MEDICA Sec.5 Vol.11/4 General Pathology Apr 58

1178. ADENOMATOSIS AND CANCER OF THE LUNGS IN GUINEA-PIGS (Russian text) - Fisher V. Jena - ARKH. PATOL. 1957, 19/4 (17-22 and 87-88)
Illus. 5

A strain of guinea-pigs used for BCG vaccinations showed an epizootic affection characterized by unusual pulmonary symptoms. Interstitial pneumonia was diagnosed in 96 animals, associated with epithelial proliferation in 39; of the latter 39, 14 showed changes characterized as adenomatous, and 13 adenocarcinomatous changes. In no case was tuberculosis demonstrable. In some instances the same animal showed chronic pneumonia, fresh suppurative inflammatory foci with yeast fungi (*Pullularia pululans*) and adenomatosis (or adenocarcinoma). The aetiology of the chronic pneumonia remained obscure but a virus infection cannot be excluded. Epithelialization of the alveolar wall was attributed to proliferation of bronchial basal cells; this are regenerative malformations which occasionally lead to malignant growth, seen in guinea-pigs at the relative early age of 9 months (corresponding to the human age group 20-30). Histological examination showed analogies to pulmonary adenomatosis in sheep (jaagziekte); correlations with pulmonary adenomatosis and adenocarcinoma in human subjects remain to be explained.

Brandt - Berlin (V. 15, 16)

FISHER, V.

Motion-picture studio at the "VEF" Plant. NTO no.10:48-49 O '59.
(MIRA 13:2)

1.Chlen Nauchno-tekhnicheskogo obshchestva Gosudarstvennoy elektro-
tekhnicheskoy fabriki, Riga.
(Motion pictures in industry)

FISHER, W.

"New forms of development in the industrial management movement." p. 19. (Przemysl Drzewny, Vol. 4, no. 5, May 53, Warszawa)

SO: Monthly List of East European Accessions, Vol 3 No 6 Library of Congress Jun 54 Unclassified

FISHER, W.

"Problems of Utilizing the Country's Waterpower Resources." p.401
(PRZEGLAD ELEKTROTECHNICZNY Vol. 29, no. 10, Oct. 1953 Warszawa, Poland)

SO: Monthly List of East European Accessions, LC, Vol. 3, no. 5, May 1954/Uncl.

USSR / General Problems of Pathology. Tumors.

U

Abs Jour: Ref Zhur-Biol., No 9, 1958, 42053.

Author : Fisher, Wal'ter

Inst : Not given.

Title : Lung Adenomas and Cancer in Guinea Pigs.

Orig Pub: Arkhiv patalogii, 1957, 19, No 4, 17-22, 87-88.

Abstract: Lung tumors occur in guinea pigs frequently on the background of preexisting chronic pneumonia. In the majority of cases the tumors appear at the end of the first 1/3 of life, but the authors found such tumors in 9 months and 2½ year old guinea pigs. The described proliferation of the epithelium represents a forerunner of the neoplastic process. -- A. G. Andres.

Card 1/1